PACIFIC SALMON COMMISSION JOINT TRANSBOUNDARY TECHNICAL COMMITTEE

ESTIMATES OF TRANSBOUNDARY RIVER SALMON PRODUCTION, HARVEST AND ESCAPEMENT AND A REVIEW OF JOINT ENHANCEMENT ACTIVITIES IN 2001

REPORT TCTR (13)-1

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ACRONYMS

ADF&G	Alaska Department of Fish and Game
AF	Aboriginal Fishery
CAFN	Champagne Aishihik First Nation
CPUE	Catch per unit effort
CWT	Coded Wire Tag
DFO	Department of Fisheries and Oceans (Canada)
DIPAC	Douglas Island Pink and Chum (Private Hatchery)
ESSR	Excess Salmon to Spawning Requirement (surplus fishery license)
IHN	Infectious Hematopoietic Necrosis (a virus which infects sockeye salmon)
LCM	Latent Class Model
MEF	Mid-Eye-Fork (fish length measurement)
POH	Post-Obital-Hyperal (fish length measurement)
PSC	Pacific Salmon Commission
SMM	Stikine Management Model
SPA	Scale Pattern Analysis
TAC	Total Allowable Catch
TRTFN	Taku River Tlingit First Nation
TBR	Transboundary River
TTC	Transboundary Technical Committee
YSC	Yukon Salmon Committee

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EXECUTIVE SUMMARY

Final postseason estimates of harvest and escapements of Pacific salmon returning to the transboundary Stikine, Taku, and Alsek Rivers for 2001 are presented and compared with historical patterns. Average, unless stated differently, refers to the 1991-2000 averages. Relevant information pertaining to the management of appropriate U.S. and Canadian fisheries is presented and the use of inseason management models is discussed. Final results from transboundary river sockeye salmon, *Oncorhynchus nerka*, enhancement projects are also reviewed.

Stikine

The 2001 Stikine sockeye run is estimated at 127,300 fish, of which approximately 53,000 fish were harvested in various fisheries including test fisheries, 50 fish were taken at the Tahltan Lake weir for otolith samples, and 2,400 Tahltan fish were used for broodstock. An estimated 75,000 Stikine fish escaped to spawn including 19,200 fish which migrated to the Tuya block and were not harvested. The catch and the run were below averages. The Tahltan escapement was below goal but the highest since 1996. The estimated U.S. commercial catch of Stikine sockeye salmon in Districts 106 and 108 was 23,500 fish and the Canadian inriver commercial, aboriginal, and ESSR fishery catches were 19,900, 5,200, and 400 fish, respectively. The inriver test fishery harvested 3,300 sockeye salmon and there was no marine test fishery in 2001. The postseason estimate of 127,300 sockeye salmon was above the preseason forecast of 113,000 fish. The Stikine Management Model over forecast the entire run throughout the season but correctly forecast little or no allowable catch on the Tahltan stock during all but two weeks. Weekly inseason model forecasts ranged from 155,000 to 219,000 sockeye salmon; the final inseason model prediction was 164,000 fish with a total allowable catch (TAC) of 80,000 fish. Based on the inseason model estimates, both Parties harvested below their 50% target of the TAC (40,000 Stikine sockeye salmon). However, using the final postseason estimate of run size and TAC, the U.S. harvested below its TAC and Canada harvested 19% above its TAC. The broodstock collection and otolith sampling removed 2,400 and 50 sockeye salmon, respectively; from the escapement to Tahltan Lake leaving a spawning escapement of 12,400 fish, falling below the spawning escapement goal of 20,000 fish. The estimated spawning escapement of 40,900 mainstem Stikine sockeye salmon was within the objective of 20,000 to 40,000 fish for this stock group.

The Chinook catch in Canadian commercial and aboriginal fisheries in the Stikine River was 1,700 large fish and 100 non large; below the respective averages. An additional 1,800 large and 60 non large Chinook salmon were taken in the Canadian inriver test fishery. The U.S. marine catch of Chinook salmon (all stocks) in the District 106 and 108 mixed stock gillnet fisheries was 1,100 fish and was below average. The Chinook spawning escapement of 10,000 large adults through the Little Tahltan River weir in 2001 was above the recently revised joint U.S./Canada escapement goal range 2,700 to 5,300 fish, was above average. The total postseason Stikine Chinook escapement estimate from a mark recapture study was 62,500 fish; above the goal of 14,000 to 28,000 fish.

As with Chinook salmon, the U.S. marine harvest of Stikine coho salmon is unknown since there is no stock identification program for this species. Mixed stock coho catch in Districts 106 was 188,500 and was average and the District 108 catch was 10,700 fish and was below average. Alaskan hatchery fish comprised approximately 35% (70,000 fish) of the coho harvest from the two districts. The Canadian inriver coho catch of 233 fish was below average. DFO used test fishery coho and sockeye CPUE to estimate coho salmon—test fishery coho CPUE indicated the inriver coho run was approximately 36% of the inriver sockeye run or roughly 44,000 fish, within the interim escapement goal range of 30,000 to 50,000 fish. The mark-recapture estimate indicated twice this escapement or 88,000 fish (range 61,000 to 126,000 fish). Aerial surveys of coho spawning index sites were above average, which also indicated an above average inriver run.

Taku

The final postseason estimate of the 2001 Taku sockeye run is 400,700 fish, including an estimated catch of 256,000 fish and an above-border spawning escapement of 144,000 sockeye salmon. The run size was above average, the total catch was a record, and the escapement was roughly twice escapement goal range of 71,000 to 80,000 fish. An estimated 208,000 Taku sockeye salmon were harvested in the District 111 commercial fishery, above average, and an estimated 1,500 sockeye salmon were harvested in the U.S. inriver personal use fishery. Canadian inriver commercial catch was 48,000 and aboriginal fishery catch was 210 sockeye salmon. The Canadian commercial catch was above average. Since the escapement goal is expressed as a range, the resulting total allowable catch is also expressed as a range. In 2001, Canada harvested an estimated 22% to 15%, and the U.S. took 80% to 64% of the total allowable catch.

The catch of large Chinook salmon in the Canadian commercial fishery in the Taku River was 1,500 fish, which was below average; in addition, 118 non large Chinook salmon were caught. The Canadian aboriginal fishery in the Taku River harvested 125 large Chinook salmon. The Chinook catch in the District 111 mixed stock gillnet fishery was 1,700 fish, and was below average. Approximately 28% of the catch was estimated to be of Alaska hatchery origin. The aerial survey escapement index of 5,000 Chinook salmon counted in Taku River index areas was below average but within the recently revised index escapement goal range of 5,800 to 10,500 fish. The above-border mark-recapture estimate of 44,700 Chinook salmon is within the escapement goal range of 30,000 to 55,000 fish.

The estimated above border run of Taku coho salmon in 2001 is 107,000 fish, which was above the average. The Canadian inriver commercial catch included 3,000 coho salmon, which was below average. After upriver Canadian catches are subtracted from the inriver run, the above-border-spawning escapement is estimated at 104,000 coho salmon, which exceeds the minimum escapement goal of 38,000 fish. The U.S. harvest of 23,000 coho salmon in the District 111 mixed stock fishery was below average. Alaskan hatcheries contributed an estimated 7% of the District 111 harvest, or 1,600 fish.

The harvest of 123,000 pink salmon in District 111 was average. Pink salmon were not retained in the Canadian commercial inriver fishery in 2001. The escapement of pink salmon to the Taku River was likely below average as evidenced by the fish wheel catch and release of 9,100 pink salmon, which was below average.

The catch of chum salmon in the District 111 fishery was 237,000 fish; composed of 235,000 summer run fish (prior to mid-August) and 1,700 fall run fish. The catch of summer chum salmon, primarily Alaskan hatchery stocks, was below average. The catch of fall chum salmon, composed of wild Taku River and Port Snettisham stocks, was below average. As with pink salmon, there was non-retention of chum salmon in the Canadian inriver fishery and the reported catch was 0 fish in 2001. Although spawning escapement is not known the Canyon Island fish wheel catch of 250 chum salmon was below average.

Alsek

The Alsek sockeye harvest of 14,000 fish in the U.S. commercial fishery was below average. The Canadian inriver catch of 1,200 fish was below average. The low catches were the result restrictions and closures in the commercial, sport, and aboriginal fisheries due to conservation concerns. The Klukshu River weir count of 10,300 sockeye salmon was below average, but within the goal-range of 7,500 to 15,000 fish. The count of 900 early-run sockeye salmon (count through August 15) was below average, whereas the count of 9,400 late run fish was average.

The U.S. Dry Bay catch of 500 Chinook salmon was average. The combined Canadian sport and aboriginal fishery catch of 300 Chinook salmon was below average. The 1,800 Chinook salmon counted through the Klukshu River weir was below average. Of the total count, 1,700 Chinook salmon were estimated to have spawned, thus achieving the escapement goal range 0f 1,100 to 2,300. Aerial survey index counts of other spawning systems were above average for the Blanchard and Takhanne Rivers and below average for Goat Creek.

Current stock assessment programs prevent an accurate comparison of Alsek coho runs with historical runs. The U.S. Dry Bay catch of 2,900 coho salmon was below average, while the combined Canadian inriver aboriginal and sport fishery catch of 99 fish was below average. The operation of the Klukshu weir does not provide a complete enumeration of coho salmon into this system since it is removed before the run is over; however, it does provide an annual index. The count of 750 coho salmon was below average.

Enhancement

Eggs and milt were collected from the year 2001 sockeye escapements at Tahltan and Tatsamenie Lakes. For the fifth year in a row the 6.0 million egg-take goal was not achieved at Tahltan Lake due to low escapement. A total of 3.3 million eggs were collected at Tahltan Lake. At Tatsamenie Lake, 3.5 million eggs were collected for the hatchery and 0.8 million eggs were collected for the in- lake incubation project.

Outplants of 2000 brood-year sockeye fry in May and June 2001 included 1.9 million fry into Tahltan Lake, no fry into Tuya Lake, and 2.2 million fry into Tatsamenie Lake. Green-egg to planted-fry survivals were 77%, and 90% for these outplants, respectively. Survival to emergence was generally at, or above, expected levels with one pair of incubators lost to Infectious Hematopoietic Necrosis (IHN). Losses from IHN have occurred in the past at Snettisham Hatchery and are expected in sockeye salmon culture.

Outmigrant smolt sampling was conducted at Tahltan and Tatsamenie Lakes in 2001. Total emigration from Tahltan Lake was an estimated at 1,496,000 smolts with approximately 44% (654,000 outmigrants) from past fry plants. Sampling at Tuya Lake was conducted to estimate age and size composition of the outmigrants but the magnitude of the emigration was not estimated. Sample size at this location was limited due to logistics and timing. The Tatsamenie Lake smolt mark-recapture program estimated that 72,000 (95% CI: 54,000 – 89,000), smolts emigrated from the lake with planted fish contributing approximately 12% of the total (9,000 smolts).

The egg incubation and thermal-marking program was continued at Snettisham Hatchery in 2001. Snettisham hatchery is operated by DIPAC (Douglas Island Pink and Chum, Inc.), a private aquaculture organization in Juneau. A co-operative agreement between ADF&G and DIPAC provides for Snettisham hatchery to serve the needs of the joint TBR enhancement projects.

Adult sockeye otoliths were processed inseason by the ADF&G otolith lab to estimate the weekly contribution of fish from U.S./Canada TBR fry planting programs to the District 106, 108, and 111 gillnet

fisheries and to Canadian commercial fisheries in the Stikine and Taku Rivers. Final contribution estimates of planted fish to Alaskan catches were 13,000 Stikine sockeye salmon to District 106 and 108 (8% of catch) and 9,000 Taku sockeye salmon to District 111 (4% of catch). Final estimates of contributions to Canadian fisheries included 10,000 sockeye salmon (38% of catch) to Stikine fisheries and 2,000 sockeye salmon to the Taku fisheries (4% of catch).

INTRODUCTION

This report presents final estimates of the 2001 catch and escapement data for Pacific salmon runs to the transboundary Stikine, Taku, and Alsek Rivers and discusses management actions taken during the season. Catch and effort data are presented by management week (U.S. statistical week) for each river for both U.S. and Canadian fisheries. Spawning escapement data for most species are reported from weir counts or other escapement monitoring techniques. Joint enhancement activities on the Stikine and Taku Rivers are also summarized.

The Transboundary Technical Committee (TTC) met prior to the season to update joint management, stock assessment and enhancement plans and determine forecasts for run strengths and initial TAC estimates for the various species and rivers. The results of this meeting are summarized in: **Pacific Salmon Commission Transboundary Technical Committee. 2001.** ***Salmon Management and Enhancement Plans for the Stikine, Taku and Alsek Rivers, 2001. Report TCTR 01-1.***

Run reconstruction analyses are conducted on the sockeye runs to the three rivers for the purpose of evaluating the stocks and the fisheries managed for these stocks. No estimates of marine catch are made for Alaskan fisheries outside of District 106 and 108 for Stikine stocks, District 111 for Taku stocks and Subdistrict 182-30 & 31 for Alsek stocks.

STIKINE RIVER

Stikine River salmon are harvested by U.S. commercial gillnet fisheries in Alaskan Districts 106 and 108, by Canadian commercial gillnet fisheries located in the lower and upper Stikine River, and by a Canadian aboriginal fishery in the upper portion of the river. In addition, a Canadian terminal area fishery is operated in the lower Tuya River and/or at Tahltan Lake when escapements are estimated to be surplus to spawning requirements (ESSR) (Figure 1). A small sport fishery also exists in the Canadian sections of the Stikine drainage. In 1995, a United States personal use fishery was established in the lower Stikine River; no catches were reported in this fishery in 1995 through 2001. Additional catches of unknown quantity are taken in U.S. troll and seine fisheries and in sport fisheries near Wrangell and Petersburg. In 1996, the spring experimental troll area in the District 9 portion of Frederick Sound was expanded to target hatchery Chinook salmon; four previous areas were combined into one large area that also included previously unopened waters. This area was the same in 2001.

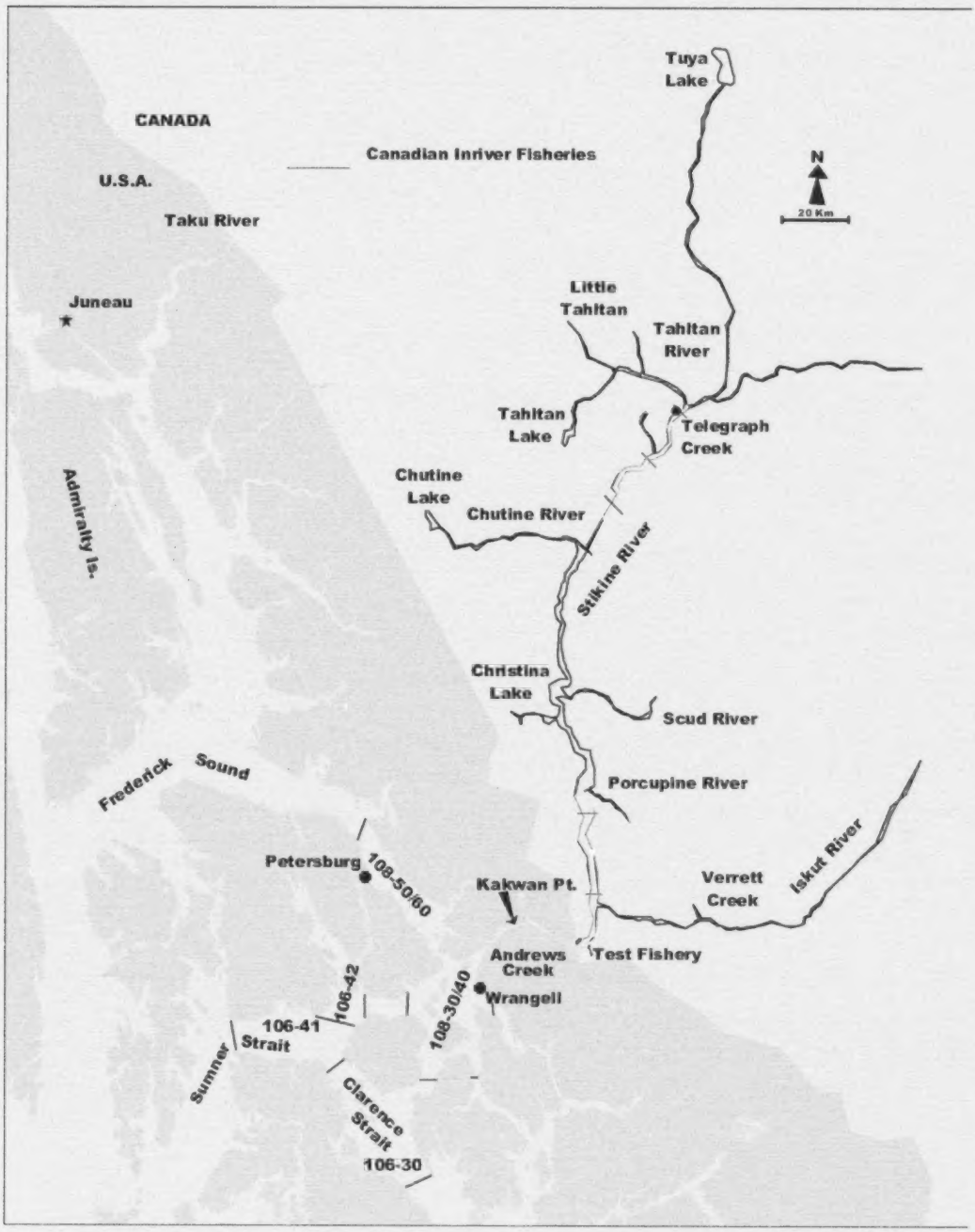

Figure 1. The Stikine River and principal U.S. and Canadian fishing areas.

Harvest Regulations and the Joint Management Model

Negotiations between Canada and the United States to replace expired portions of Annex IV, Chapter 1 of the Pacific Salmon Treaty resulted in the following arrangements for Stikine salmon which are expected to be in place for the 1999 to 2008 period:

1. General:

The Parties shall improve procedures for coordinated or cooperative management of the fisheries on transboundary river stocks. To this end, the Parties affirm their intent to develop and implement abundance-based management regimes for transboundary Chinook, sockeye and coho salmon no later than May 1, 2004.

2. Sockeye Salmon:

(i) Assessment of the annual run of Stikine River sockeye salmon shall be made as follows:

a. a preseason forecast of the Stikine sockeye run will be made by the Committee prior to April 1 of each year. This forecast may be modified by the Committee prior to the opening of the fishing season;

b. inseason estimates of the Stikine sockeye run and the Total Allowable Catch (TAC) shall be made under the guidelines of an agreed Stikine Management Plan and using a forecast model developed by the Committee. Both U.S. and Canadian fishing patterns shall be based on current weekly estimates of the TAC. At the beginning of the season and up to an agreed date, the weekly estimates of the TAC shall be determined from the pre-season forecast of the run strength. After that date, the TAC shall be determined from the inseason forecast model;

c. modifications to the Stikine Management Plan and forecast model may be made prior to June 1 of each year by agreement of both Parties. Failure to reach agreement in modifications shall result in use of the model and parameters used in the previous year; and

d. estimates of the TAC may be adjusted inseason only by concurrence of both Parties' respective managers. Reasons for such adjustments must be provided to the Committee.

(ii) The Parties desire to maximize the harvest of planted Tahltan/Tuya sockeye salmon in their existing fisheries while considering the conservation needs of wild salmon runs. The Parties agree to manage the runs of Stikine sockeye salmon to ensure that each country obtains 50% of the TAC in their existing fisheries. Canada will endeavor to harvest all fish surplus to escapement and broodstock needs returning to the Tuya and Tahltan Lake systems.

(iii) The Parties agree to continue the existing joint enhancement programs designed to produce annually 100,000 returning sockeye salmon.

(2) Coho salmon:

(i) Consistent with paragraph 1 above, the Parties agree to develop and implement an abundance-based approach to managing coho salmon on the Stikine River. Assessment programs need to be further developed before a MSY escapement goal can be established.

(ii) In the interim, the United States' management intent is to ensure that sufficient coho salmon enter the Canadian section of the Stikine River to meet the agreed spawning objective, plus an annual Canadian catch of 4,000 coho salmon in a directed coho fishery.

(3) Chinook salmon:

(i) Both Parties shall take the appropriate management action to ensure that the necessary escapement goals for Chinook salmon bound for the Canadian portions of the Stikine River are achieved.

(ii) The Parties agree that new fisheries on Stikine Chinook salmon will not be developed without the consent of both Parties. Consistent with paragraph 2, management of new directed fisheries will be abundance-based through an approach to be developed by the Committee. The Parties agree to implement assessment programs in support of the development of an abundance-based management regime.

(iii) The Parties shall review an appropriate MSY escapement goal for Stikine Chinook salmon by May 1999 and establish a new goal as soon as practicable thereafter.

As in most previous years, the Transboundary Technical Committee (TTC) met prior to the season to update joint management and enhancement plans, develop run forecasts and determine new parameters for input into the inseason run forecast model, referred to as the Stikine Management Model (SMM). The model was upgraded to provide inseason forecasts of the total Stikine sockeye run as well as the following components of the run: the Tahltan stock (wild and planted combined); the planted Tuya stock; and the mainstem stocks. The model for 2001 was based on CPUE data from 1985 to 2000 from District 106 and the Canadian commercial fishery in the lower river and from 1986 to 2000 from the lower Stikine test fishery. Linear regression was used to predict run size from cumulative CPUE for each week of the fisheries beginning in week 25 for District 106 and week 26 for the inriver fisheries. As in 2000, the intercept was forced to be zero in order to correct for a tendency to overestimate the run size in the earlier weeks during years of low abundance. In 2001 the inriver test fishery was used as the primary inseason index of inriver run strength. Calculations were also made for the lower Stikine commercial CPUE, which excluded catch and effort data from the Flood Glacier area, i.e. the new area introduced in 1997 and fished through the 2000 season. In addition, the annual weekly CPUE values for 1994 through 2000 were decreased by a factor of 0.75 for the extra gear allowed in the commercial fishery during that period. This made the historical CPUE data for that period more comparable with the pre-1994 era.

In 2001, the preseason forecasts were used during statistical weeks 25 (June 17 – 23) through 27 (July 1–7). After week 27, inseason forecasts of total run size and TAC, produced by the SMM and based on catch-per-unit-effort (CPUE) data, were used to assist in determining weekly fishing plans (Table 1). The weekly inputs to the model included: the catch, effort and stock composition (proportion Tahltan/Tuya from egg diameters, proportion planted Tuya from thermal mark analyses of otoliths) in the Canadian lower river test and commercial fisheries; the upper river catch in the aboriginal fishery (AF) and upper river commercial fishery; the catch, effort and assumed stock composition in Subdistrict 106-41; and, the catch and assumed stock composition in District 108 and Subdistrict 106-30. Final results of thermal

mark analyses were available inseason for the marine and lower river fisheries to account for Tuya production in the model and reduce the risk of over-estimating the TAC of Tahltan sockeye salmon, which was expected to be below average in 2001.

Table 1. Weekly forecasts of run size and total allowable catch for Stikine River sockeye salmon as estimated inseason by the Stikine Management Model, 2001.

Stat.	Start	Forecast	TAC			Cumulative Catches [a]	
Week	Date	Run Size	Total	U.S.	Canada	U.S.	Canada
Model runs generated by Canada							
26	24-Jun	113,000	27,200	13,600	13,600	6,886	237
27	01-July	113,000	27,200	13,600	13,600	12,691	3,369
28	08-Jul	200,532	111,799	55,900	55,900	22,142	8,491
29	15-Jul	218,648	132,036	66,018	66,018	30,014	13,521
30	22-Jul	197,148	107,433	53,716	53,716	31,614	13,996
31	29-Jul	195,592	107,102	53,511	53,511	26,400	22,787
32	05-Aug	188,995	105,119	52,560	52560	26,400	23,683
33	12-Aug	170,796	84,725	42,362	42,362	26,300	23,683
34	19-Aug	164,161	78,394	39,197	39,197	39,197	23,683
Model runs generated by the U.S.							
25	17-Jun	113,000	26,642	13,321	13,321	2,146	
26	24-Jun	113,000	26,642	13,321	13,321	6,886	237
27	01-Jul	113,000	26,642	13,321	13,321	13,363	3,639
28	08-Jul	192,828	119,089	59,545	59,545	22,441	7,822
29	15-Jul	211,202	138,666	69,333	69,333	28,830	13,521
30	22-Jul	211,202	119,071	59,536	59,536	26,207	20,282
31	29-Jul	171,950	85,361	42,681	42,681	26,402	20,282
32	05-Aug	155,603	70,241	35,121	35,121	27,067	24,162
33	12-Aug	170,796	86,459	43,230	43,230	27,179	24,162
34	19-Aug	164,161	80,098	40,049	40,049		
Final Postseason end-of-season estimate (from Table 2).							
		127,255					

[a] does not include test fishery catches

Initially, average stock proportions in District 106 and 108 catches, from historical postseason scale pattern analysis (SPA), were assumed for weekly catches; the averages used each week depended upon whether the run was judged to be below average, average, or above average. The Tuya and planted Tahltan stock proportions were subsequently adjusted inseason based on the analysis of otolith samples taken in Districts 106 and 108. Inseason otolith sampling was conducted to estimate the contribution of planted Tahltan and Tuya Lake sockeye salmon to catches in these areas. The weekly estimate of Tuya fish in District 106-41 was added to the historical proportion of Tahltan fish in the SMM since this stock was not present in the historical database. No adjustments were made in District 108 which was not open during the sockeye fishery.

The preseason forecast for the Stikine sockeye run was 113,000 fish (Table 1), which indicated a run size below average (Appendix B.28). The forecast included approximately 23,600 natural Tahltan sockeye salmon (21%), 4,400 planted Tahltan fish (4%), 35,000 planted Tuya sockeye salmon (31%), and 50,000 mainstem fish (44%). Canadian inseason predictions of total run ranged from 164,161 to 218,648 sockeye salmon: U.S. forecasts ranged from 155,603 to 211,202 sockeye salmon (Table 1). All forecasts indicated an above average total Stikine run but a below average Tahltan run. As in 2000, the preseason forecast

was more accurate than inseason forecasts. U.S. and Canadian weekly predictions differed due to different catch data input used for the updates.

Inseason management was influenced significantly by forecasts derived from the SMM which was updated and refined by the TTC prior to the season. The model is based on the historical relationship between cumulative CPUE and run size and provides three sets of independently generated forecasts for the Tahltan, Tuya, and mainstem runs: one set based on US District 106 CPUE, another based on Canadian inriver commercial CPUE and the last based on Canadian test fishery CPUE. Each CPUE and run size data set is significantly correlated. Unfortunately, the inseason forecasts exhibited a very wide range in 2001; the forecasts generated from the inriver commercial CPUE were consistently higher than those derived from District 106 or inriver test fishery CPUE data. The forecasts derived from the inriver test fishery data were consistently the lowest. The inriver test fishery CPUE was the forecast used inseason because it has the most consistent historical database of the three data sets.

The final postseason estimates of run size and TAC are well below the predictions that were used inseason for management. For week 28 the model predicted a TAC for the Tahltan stock of approximately 10,000 for each country; in all other weeks the model correctly predicted that there was little or no TAC for the Tahltan stock. Part of the difference between the final inseason run size estimate and the final postseason estimate is due to the different methods used. The postseason estimate is based on the inriver commercial fishery CPUE. Comparison of the two estimates will be made when the TTC reviews SMM performance and evaluates additional management tools prior to the 2001 fisheries.

U.S. Fisheries

The 2001 gillnet harvest in District 106 included 1,057 Chinook; 164,013 sockeye; 188,465 coho; 825,330 pink, and 282,910 chum salmon (Appendix A.1 and B.1). The harvests of Chinook, pink, and chum salmon were above average, while the 2001 harvest of sockeye and coho salmon were both average. The final postseason estimate of the contribution of Stikine sockeye salmon to the District 106 total harvest was 23,423 fish or 14.3% of the harvest (Appendices A.2 and B.2). An estimated 446 Chinook salmon in the District 106 harvest (42.2%) were of Alaska hatchery origin. An estimated 35.8% of the coho harvest was of Alaskan hatchery origin. The pink salmon harvest in District 106 was above average. The District 106 drift gillnet fishery was open for 50 days from June 17 through October 13 (Appendices A.1 and B.1). This was above average fishing time. Sections 6-A, 6-B, and 6-C were open simultaneously each week throughout the season. Fishing effort in number of vessels fishing in District 106 was below the average for the most of the season (Appendix B.1). The greatest effort in both vessels fishing and boat days occurred week 29 during the week beginning July 15 when 121 vessels fished for 3 days. Boat-days in District 106 were average (Appendix B.1).

The Sumner Strait fishery (Subdistricts 106-41 & 42) harvested an estimated 17,004 Stikine sockeye salmon (Appendices A.3, A.4, B.3, and B.4), 17.1% of the total sockeye harvest in that subdistrict. The Clarence Strait fishery (Subdistrict 106-30) harvested 6,419 Stikine sockeye salmon (Appendices A.5, A.6, B.5, and B.6), 10% of the total sockeye harvest in that subdistrict.

In District 108, 7 Chinook, 610 sockeye, 10,731 coho, 11,012 pink, and 5,397 chum salmon were harvested for the season (Appendices A.7 and B.7). The District 108 fishery harvested 77 Stikine sockeye salmon (Appendices A.8 and B.8), 12.6% of the District 108 sockeye harvest. The District 108 fishery started on July 29 and ran through October 13. The 36 days the district was open was below average (Appendices A.7 and B.7). District 108 was not opened until week 31 due to an expected very weak run of Tahltan sockeye salmon. Because the fishery was delayed, comparisons of 2001 harvest to previous 10-year averages are meaningless. An estimated 23.9% of the coho harvest was of Alaskan hatchery origin. The fishing effort in number of vessels fishing in District 108 was below average most openings

except during week 35 at the end of August. The season effort of 377 boat-days in District 108 was below average (Appendix B.7). Once again the conservative fishing time in District 108 was in place to restrict access to those areas closest to the Stikine River (allowing almost all Tahltan sockeye salmon additional time and protection to pass through this area).

The District 108 test fishery did not take place in 2001 (Appendix A.9). Annual harvests and stock compositions from 1960 to 2000 for District 6 and 8 test fishery are provided in Appendices B.9-B.11.

Harvests in Districts 106 and 108 consist of species of mixed stock origin; the contribution of Stikine stocks is estimated only for sockeye salmon. The proportions of Stikine sockeye salmon in the District 106 and 108 harvests were estimated inseason using both the historical proportions of each stock and the inseason proportions of thermally marked fish from fry plants to Tahltan and Tuya Lakes.

The District 106 gillnet season began 12:00 noon on Sunday, June 17 (statistical week 25) for a 48 hour period. This opening is normally two days and any decision to extend fishing is based on fishery harvest rates estimated by management biologists on site in the fishery. District 108 was closed for this opening, in order to attain the desired sockeye escapement to Tahltan Lake. Due to the high potential for an extremely weak Tahltan sockeye run and the desired escapement of 24,000 fish to the lake, no openings were expected in District 108 and no fishery extensions were expected in District 106 for the first 4-5 weeks of the fishing season. The estimated sockeye CPUE in District 106 for statistical week 25 was above average for this week. However, the fishery was open in week 25 in only 4 years during the 1991-2000 period. Based on aerial survey, an estimated 42 boats were fishing in Sumner Strait (106-41) and 6 boats were fishing in Clarence Strait (106-30) during this opening. The otolith readings for District 106 for week 25 indicated that the marked stock composition of the harvest in Sumner Strait had a low proportion of planted Tahltan fish (1%) and a much higher proportion of Tuya fish (20%) from the 287 fish sampled. The preseason Stikine Management Model (SMM) forecast a total Stikine TAC of 26,642 fish and a Tahltan TAC of 3,554 fish. This would allow the U.S. fisheries to harvest a total of 13,321 Stikine fish, including 1,777 Tahltan fish. The pre-season forecast was used for weeks 25-27; the inriver test fishery CPUE data was used for the remainder of the sockeye season.

During statistical week 26 (June 24-June 30) there were 50 boats fishing in Sumner Strait and 34 boats fishing in Clarence Strait (Appendices A.3 and A.5). District 108 remained closed and no fishery extension was given in District 106. The estimated sockeye CPUE in District 106 was well above average for this week. The high CPUE under normal, historical circumstances would have warranted a 24-hour extension of fishing time in District 106. However, the decision not to extend the fishing period was based on the forecast for a weak Tahltan sockeye run.

During statistical week 27 (July 1-July 7) there were 57 boats fishing in Sumner Strait (106-41) and 37 boats were fishing in Clarence Strait (106-30; Appendices A.3 and A.5). The estimated sockeye harvest and CPUE was lower this week than in week 25 and 26, and near average. Once again District 108 remained closed and no extension was given in District 106 for this opening. This week the SMM switched from the preseason forecast to a forecast based on the Canadian inriver test fishery CPUE for the week 28 projections. The SMM for week 27 indicated that the District 106-41 catch was comprised of 3.1% marked Tahltan fish and 34.9% marked Tuya fish. During this opening Canadian commercial harvest information from otolith samples showed 6.2% marked Tahltan and 34.9% marked Tuya fish. The estimated U.S. Tahltan harvest by the end of this week was 6,166 sockeye salmon, while the estimated TAC projected for week 28 jumped to 17,951 fish due to the switch from preseason forecast to inseason test fish CPUE forecasts.

During statistical week 28 (July 8-July 14) there were 90 boats in District 106 (66 in 106-41 and 25 in 106-30; Appendices A.3 and A.5). Survey on the fishing grounds showed that both the harvest and the

CPUE for the two-day opening in District 106 were well above average for both subdistricts. Again, under normal circumstances this data would have led to extended fishing time. Historically the Tahltan sockeye run peaks in District 106 in week 27; however, the 2001 statistical weeks were almost a week earlier than in a normal calendar year, which would have made this year's run timing more similar to statistical week 29 (with the majority of the run through the District 106 fishery). The week 28 SMM forecast for week 29 showed the Stikine inriver run increasing to 219,479 sockeye salmon and the Tahltan run increasing to 46,890 fish. This increased the total Stikine sockeye TAC to 138,666 (U.S. TAC: 69,333) with a Tahltan total TAC of 22,444 (U.S. TAC: 11,222). The estimated U.S. harvest of Tahltan sockeye salmon was estimated at 12,933 fish. Despite the high CPUE and due to the SMM indication that no additional Tahltan sockeye salmon could be harvested in U.S. fisheries, there was no extension given and District 108 remained closed.

During statistical week 29 (July 15-July 21) there were 121 boats fishing in District 106. This opening started at two days, with an enlarged closure around Salmon Bay. Due to above average CPUE in subdistricts and a drop in proportion of Tahltan sockeye salmon in the Canadian test fishery to 13% of the catch in week 29, a 24 hr extension was given to the fishery on the grounds, extending the fishery until noon Wednesday. District 108 again remained closed. Statistical week 29 had the highest sockeye CPUE of the 2001 season.

During statistical week 30 (July 22-July 28) there were 119 boats fishing in District 106. Due to the estimated low number of Tahltan sockeye salmon in the fishery during week 29 (8.5%) and the low historical average proportion Tahltan in the week 30 catch in District 106 (106-41 = 0.8%, 106-31 = 0.0%) the decision was made to open District 106 for three days. The sockeye CPUE for week 30 was above average. By the end of the fishing period, the total Stikine run forecast had dropped to 171,950 sockeye salmon with a Tahltan run of 19,078 fish, leaving no TAC. The week 30 SMM indicated a U.S. Tahltan harvest of 11,452 fish and a Canadian harvest of 2,853 Tahltan fish with no reported catches from the upper river commercial fishery since week 27 or the upper river Aboriginal fishery since week 28

During statistical week 31 (July 29-August 4) there were 111 boats fishing in District 106 and 9 boats fishing in District 108. District 8 was opened for the first time this season with lines restricting access to areas closest to the Stikine River. These fishery restrictions were in place to allow Tahltan sockeye salmon to pass through District 108. Both Districts 106 and 108 were open for three days and the sockeye CPUE was below average. The SMM indicated a Stikine run of 155,603 sockeye salmon and a Tahltan run of 18,313 fish, again leaving no TAC for this stock. At this time the cumulative Tahltan harvest for the U.S. was estimated to be 11,463 fish and the Canadian harvest was estimated to be 2,706 fish in the lower river commercial catch and with no updates to the upper river commercial fishery since week 27 or the upper river Aboriginal fishery since week 28. There were no thermally marked Tahltan fish recovered in either district after week 29, and although the ratio of marked Tahltan fish to wild Tahltan fish was uncertain at this time, this did indicate that most or all the Tahltan fish had migrated through Districts 106 and 108 by late July. No mid-week openings or extensions were given since the harvests were below average and there was concern about over-harvesting island sockeye stocks which migrate through the fisheries during that time. This was the final week of directed sockeye salmon fishing in Districts 106 and 108. The final runs of the SMM for weeks 32-34 indicated runs of 164,161 Stikine sockeye salmon with 15,094 Tahltan sockeye salmon. The harvest for Tahltan sockeye salmon in the U.S. fisheries from the SMM was 11,769 and 4,096 for all of the combined Canadian fisheries. The sockeye escapement to Tahltan Lake reached just under 15,000, which suggests that the preseason forecast was close to the final estimate and the SMM over projected the run size during weeks 28 and 29 but was fairly accurate after that time. These numbers compare to final postseason harvest estimates of 3,687 Tahltan and 20,335 total Stikine fish in U.S. fisheries and 4,793 Tahltan and 25,600 total Stikine fish in Canadian fisheries.

During statistical week 32 (August 5-August 11) both District 106 and 108 were managed for pink salmon abundance. Typically this switch occurs during statistical week 33; however, this year's statistical weeks were shifted almost a week earlier than most years. This opening was four days in Districts 106 and 108. All of District 108 was open with the exception of the Petersburg Creek closure in Fredrick Sound. Section 6D was closed from this week through statistical week 35. Pink salmon harvests in both districts are not always a true reflection of abundance because of low prices for pink salmon, along with good catches of other more valuable species, may affect the fishing patterns and methods. During the 2001 season, the fishing effort was nearly one-half of average in most weeks. High catches of chum salmon in other districts reduced the number of boats fishing in Districts 106 and 108. Despite the lowered effort, the pink salmon harvest for weeks 32-34 far exceeded averages, along with much higher CPUE. Due to the high numbers of pink salmon in both districts four-day fishing periods were allowed during statistical weeks 32 - 35 (August 5 – September 1).

Coho management in both the District 106 and 108 gillnet fisheries typically commences during late August or early September. During statistical week 36 (September 2 – September 8) the management emphasis changed from pink to coho salmon. The weekly catch of wild coho harvests prior to week 36 was usually above the average. Due to the projections of extremely good coho escapements throughout the region, along with above average wild CPUE, three-day openings were allowed in both districts from weeks 36 through week 40 (September 2–October 6). The season ended with a final two day opening during week 41 (October 7-13). In District 106, prior to the change to coho salmon management, the sockeye and pink salmon fisheries harvested 93,999 coho salmon, or approximately 50% of the total District 106 coho harvest.

Canadian Fisheries

Postseason final catches from the combined Canadian commercial and aboriginal gillnet fisheries in the Stikine River in 2001 included: 1,491 large Chinook, 103 non large Chinook, 25,600 sockeye, 233 coho, 78 pink, and 56 chum salmon (Appendices A.10, A.13, B.12, B.15). In addition to these catches, 410 sockeye salmon were taken in an ESSR harvest in the Tuya River (Table 2). Catches of all species except pink salmon were below average (Appendices B.12 and B.15). The final estimate of the total sockeye contribution from the Canada/U.S. fry planting program to the combined Canadian aboriginal and commercial fisheries is 9,694 fish, 37.8% of the catch.

Three test fisheries (Chinook, sockeye and coho salmon) were conducted in the lower Stikine River in 2001, just upstream from the Canada/U.S. border. Combined test fishery catches included: 1,782 large Chinook, 103 non large Chinook, 3,281 sockeye, 1,761 coho, 198 pink, and 109 chum salmon, (Appendices A.15 and B.19). The objectives of the Chinook, sockeye, and coho test fisheries were to obtain data for respective mark-recapture programs and to collect information about run timing. Additional objectives of the sockeye test fishery were similar to those in previous years: to provide inseason catch, stock ID and effort data for input into the SMM to forecast the inriver run size; and, to determine migratory timing and stock composition of the sockeye run for use in the postseason estimations of the inriver sockeye and coho run sizes.

Lower Stikine Commercial Fishery

Canadian commercial fishers in the lower Stikine harvested 826 large Chinook , 59 non large Chinook , 19,872 sockeye, 233 coho, 78 pink, and 56 chum salmon (Appendix A.10). The sockeye catch was below average (Appendix B.12). Catches of all species except pink salmon were below average (Appendices B.12). Based on final estimates, the stock composition of the lower river sockeye catch was as follows: 632 planted Tahltan fish, 3.2% of the sockeye catch; 2,850 wild Tahltan fish, 14.3% of the catch; 11,907 mainstem fish, 59.9% of the catch; and 3,482 planted Tuya fish, 26.6% of the catch (Appendix B.13).

Weekly guideline harvests, based on SMM forecasts of the total allowable catch (TAC) apportioned by average run timing and domestic and international allocation agreements, were developed each week to guide management decisions during the sockeye season. Particular attention was directed at the inriver run and escapement forecasts of the various stock groupings. Management through statistical week 31 was focused primarily on the Tahltan sockeye stock after which it switched to mainstem sockeye stocks through the end of August, and then to coho salmon. The Tahltan sockeye stock was of particular concern given the preseason expectation of a below average run.

The fishery commenced at noon on Sunday, June 24 (statistical week 26) for a scheduled opening of one day. Fishing time was kept to 24 hours due to a below average CPUE of Tahltan fish and the expectation of a below average run of Tahltan sockeye salmon.

Table 2.–Run reconstruction for Stikine sockeye salmon, 2001.

	Tahltan Mainstem		Total	Tuya	Tahltan Wild	Tahltan Hatchery	Total Stikine	All Planted	All Wild
Escapement a	14,811	40,855	55,666	19,208	8,946	5,865	74,874	25,072	49,802
ESSR Catch b				410			410	410	0
Biological Samples	50		50		30	20	50	20	30
Broodstock	2,386		2,386		1,441	945	2,386	945	1,441
Natural Spawning	12,375	40,855	53,230		7,475	4,900	53,230	4,900	48,330
Excess c			0	18,798			18,798	18,798	
Canadian Harvest									
Indian Food	1,795	507	2,302	2,939	1,454	341	5,241	3,280	1,961
Upper Commercial	213	45	258	229	148	65	487	294	193
Lower Commercial	3,482	11,907	15,389	4,483	2,850	632	19,872	5,115	14,757
Total	5,490	12,459	17,949	7,651	4,452	1,038	25,600	8,689	16,911
% Harvest	46.4%	74.8%	63.0%	37.1%					
Test Fishery Catch	684	1,673	2,357	924	560	124	3,281	1,048	2,233
Inriver Run	20,985	54,987	75,972	27,783	13,958	7,027	103,755	34,810	68,945
U.S. Harvest a									
106-41&42	3,164	2,777	5,941	11,063	1,723	1,441	17,004	12,504	4,500
106-30	3,175	1,342	4,517	1,902	3,024	151	6,419	2,053	4,366
108	0	74	74	3	0	0	77	3	74
Total	6,339	4,193	10,532	12,968	4,747	1,592	23,500	14,560	8,940
% Harvest	53.6%	25.2%	37.0%	62.9%					
Test Fishery Catch	0	0	0	0	0	0	0	0	0
Total Run	27,324	59,180	86,504	40,751	18,705	8,619	127,255	49,370	77,885
Escapement Goal	24,000	30,000	54,000	0					
Terminal Excess d				36,814					
Total TAC	2,640	27,507	30,147	3,937					
Total Harvest e	12,513	18,325	30,838	21,953			52,791	24,708	28,083
Canada TAC	1,320	13,754	15,074	1,969					
Actual Catch f	5,490	12,459	17,949	7,651			25,600	8,689	16,911
% of total TAC	415.9%	90.6%	119.1%						
U.S. TAC	1,320	13,754	15,074	1,969					
Actual Catch fg	6,339	4,193	10,532	12,968			23,500	14,560	8,940
% of total TAC	480.2%	30.5%	69.9%						

a Escapement into terminal and spawning areas from traditional fisheries.

b Catch allowed in terminal areas under the Excess Salmon to Spawning Requirement license.

c Fish returning to the Tuya system are not able to access the lake where they originated due to velocity barriers.

d The number of Tuya fish that should be pass through traditional fisheries in order to harvest the Tuya stock at the same rate as the Tahltan stock to ensure adequate spawning escapement for Tahltan fish.

e Includes traditional, ESSR, and test fishery catches.

f Does not include ESSR or test fishery catches.

g U.S. harvest estimate differs from Joint Interception Committee estimate because no estimates are made for catches other than in the listed fisheries.

Sockeye catches increased in week 27 (July 1-July 7) and the commercial Tahltan sockeye CPUE was above average. Again, concern over a potentially weak Tahltan sockeye run kept fishing time to 1 day. The SMM forecast for week 28, based on the inriver test fishery CPUE indicated a TAC of 23,116 Tahltan Lake sockeye salmon, which was to be split 50/50 between Canada and the U.S. The estimated cumulative Tahltan sockeye catch through week 27 was 1,200 fish, which was slightly below guideline catches for this week.

In statistical week 28 (July 8-July 14), the fishery was opened on two days in anticipation of a slightly stronger than expected run of Tahltan sockeye salmon. Results from preliminary otolith analyses from samples collected over the previous weeks continued to indicate a high contribution of Tuya sockeye salmon to the lower Stikine catches. It was also evident that the mainstem run was very abundant. This meant the high CPUE observed to date were wholly attributed to sockeye production from the Tuya Lake fry plants and the run of mainstem sockeye salmon. The Tahltan sockeye CPUE in week 28, however, was below average and therefore the fishery was held to two days.

Based on the Tahltan sockeye projections for week 29, which indicated that a slight surplus of Tahltan fish was available, the fishery was again opened on two days. The Tahltan stock, however, was not present in the numbers that the model predicted. The CPUE on Tahltan sockeye salmon was well below average and the fishery was therefore held to two days. A record mainstem sockeye CPUE and an above average Tuya sockeye CPUE was registered in week 29.

In week 30 (July 23-July 29), management focus shifted from the Tahltan stock, 78% of which had cleared the fishery based on the 1991-00 run timing records, to the mainstem sockeye run. The fishery was opened for three days in order to harvest what appeared to be a near record run of mainstem sockeye salmon. The CPUE on mainstem fish was over 50% above average. The fishery was held at three days, however, due to the presence of some Tahltan fish (approximately 8%).

In week 31 (July 30 to Aug 06) the fishery was posted for two days and extended an additional three days to harvest the strong run of mainstem sockeye salmon. The CPUE of mainstem fish was 40% above average for the week. The majority of Tahltan fish had cleared the fishery.

For the remainder of the fishery (weeks 32 to 36) weekly openings were relatively liberal with four to five day openings posted in order to harvest the strong mainstem run. The fishing effort, however, was light with some fishers electing not to fish during some of the open days.

Based on sockeye CPUE in the lower river, the overall sockeye run timing appeared to be about normal. The run peaked in week 27, similar to the average peak in timing over the previous ten years. The Tahltan and Tuya stocks peaked in week 27. Mainstem sockeye salmon peaked in week 29, one week ahead of normal timing for this stock conglomerate.

As in recent years, Excess Salmon to Spawning Requirements (ESSR) fishing activities again focused on the lower Tuya River to harvest fish originating from the fry-planting program. Unfortunately marketing problems prevented a full scale Tuya ESSR fishery this year. Only 410 sockeye salmon were harvested in this area (Table 2, Appendix B.18). These fish were distributed to the Tahltan First Nations elders.

Out of 18 licenses available for the lower river, 11 licenses were issued in 2001 with a maximum of 10 licenses being active in any one week. The total effort in terms of boat-days was 173, which was below average (Appendix B.12). Gear was restricted to one drift or set gill net and the commercial fishing zone was reduced from the 1997-2000 zone defined by the Canada/US border upstream to the mouth of Flood Creek to an area bounded by the Canada/US border to the mouth of the Porcupine River (the pre 1997 fishing zone). These actions were taken to protect the expected weak run of Tahltan sockeye salmon.

Upper Stikine Commercial Fishery

A small commercial fishery has existed near Telegraph Creek on the upper Stikine River since 1975. The catch recorded in 2001 was 487 sockeye salmon, which was below average (Appendices A.12 and B.14). The fishing effort was below average with an average of only two fishers fishing one to two days per week. A total of 4 days was fished and the total effort amounted to 6 boat-days. For comparison, the ten year average fishing time was 25 days with an average effort of 39 boat-days.

Aboriginal Fishery

The Stikine aboriginal fishery, which is located near Telegraph Creek, harvested 665 large Chinook, 44 non large Chinook, and 5,241 sockeye salmon (Appendix A 13). The catch of sockeye salmon was average. The harvest of large Chinook salmon was below average, while the non large Chinook catch was below average (Appendix B 15). As in past years, fishing times were not restricted in this fishery.

Escapement

Sockeye

A total of 14,811 sockeye salmon was counted through the Tahltan Lake weir in 2001; below average (Appendices A.17 and B.22). An estimated 4,900 fish (33.1%) originated from the fry planting program, which was similar to what was observed in the 1998 smolt out-migration. The number of planted fish in 2001 was based on the proportion of thermal marked Tahltan sockeye salmon as estimated from otoliths collected during the egg-take. In total, 2,386 sockeye salmon were collected for broodstock for the fry-planting project (Table 2). This leaves a spawning escapement of 12,375 sockeye salmon, below the Tahltan Lake escapement goal of 24,000 fish.

The spawning escapements for the mainstem and the Tuya stock groups are estimated indirectly by computing the ratio of Tahltan to mainstem and Tuya components in the total inriver sockeye run. Stock identification data are collected in the lower river commercial and test fisheries. The ratios of Tahltan:mainstem and Tahltan:Tuya are applied to the estimated inriver Tahltan run size to develop an estimate of the total inriver sockeye run. The escapements are estimated by subtracting the inriver catches from the inriver run estimate. The 2001 escapement estimates are 40,855 mainstem and 19,208 Tuya sockeye salmon (Table 2). The mainstem sockeye stocks spawn in tributaries and the mainstem of the Stikine River. The mainstem spawning escapement is within the escapement goal range of 20,000 to 40,000 fish. Aerial survey results indicated an above average escapement of mainstem fish with a record count of 3,518 sockeye salmon; above average (Appendix B.23). The Tuya fish are blocked from entering potential spawning grounds of the Tuya River by natural barriers and are targeted in the ESSR fishery, which caught 410 fish in 2001 (Table 2; Appendix B.18). The fate of the remaining 18,798 Tuya fish is uncertain. For the second consecutive year Tuya River sockeye salmon were observed spawning at Shakes Creek located approximately 50 km downstream of the Tuya River. It is not known if any of the Tuya sockeye salmon reproduce.

For the second consecutive year sockeye mark-recapture program was executed to explore the feasibility of developing an alternate abundance-based management regime for Stikine sockeye salmon. The final estimate of the total escapement using a modified Peterson estimate was 24,495 sockeye salmon (m=1,987, r=107, c=23,153), ranging from 118,430 to 130,560 fish. This estimate is slightly higher than the postseason estimate of 70,021 sockeye salmon estimated postseason using the commercial fishery cpue. The postseason estimate generated using the test fishery cpue indicates an additional 9,000 Tuya and 24,000 mainstem spawners, for a total escapement very similar to the mark-recapture estimate.

Analyses will be conducted this winter to try and determine the most accurate method to use to estimate the mainstem and Tuya inriver runs.

Chinook

Chinook escapement enumerated at the Little Tahltan weir was 9,738 large fish (8 fish used for broodstock) and 269 non large Chinook salmon between June 20 and August 14 (Appendix A.19). The escapement for large Chinook salmon was 80% above the upper limit of the escapement goal. The Stikine River Chinook escapement goal was revised in 1999 to 17,500 fish, with a range of 14,000 to 28,000 Chinook salmon. The Little Tahltan escapement goal is approximately 19% of the total Stikine River escapement or approximately 3,300 fish, with a range of 2,300 to 5,300 fish through the Little Tahltan weir. The Little Tahltan escapement of 9,730 represents approximately 15.6 % of the total escapement. Aerial surveys of the Tahltan River and Beatty Creek have been discontinued. Aerial survey counts for the remainder of the Stikine Chinook escapements were above average.

A mark-recapture study was conducted again in 2001. The final escapement estimate for large Stikine Chinook salmon is 62,543 fish (Appendix B. 26).

Coho

DFO used test fishery coho and sockeye CPUE to estimate coho salmon—test fishery cumulative weekly CPUE of coho salmon was a record high and constituted 36% of the cumulative weekly sockeye CPUE, thus indicating the coho run to be approximately 36% of the estimated sockeye run of 121,063 fish or 43,582 coho salmon. Based on these analyses, the total inriver escapement of Stikine River coho salmon was 41,588 fish. This escapement is within the interim escapement goal range of 30,000 to 50,000 and is approximately 67% above average escapement of 29,000 fish. Results from the coho aerial surveys also indicated an above average Stikine River coho run. A record total of 7,405 coho salmon was observed in 2001; above average (Appendix B.27).

For the second consecutive year a coho mark-recapture program was conducted to explore the feasibility of developing an alternate abundance-based management regime for Stikine River coho salmon. The final estimate of the total escapement using a modified Peterson estimate (m=1,378, r=28, c=1,994) is approximately 88,100 coho salmon, ranging from 61,000 to 126,000 fish. Again, as occurred in the 2000 study, the low catch in both the test and commercial fisheries in tandem with the low number of tagged fish recovered, resulted in the very wide range of coho escapements as indicated above. Increased fishing effort (commercial and test fishing grounds) are recommended for future studies.

Sockeye Run Reconstruction

The final postseason estimate of the Stikine sockeye run size is 127,255 fish, of which 27,324 are of Tahltan Lake origin (wild & planted), 40,751 are of Tuya origin (fry from Tahltan broodstock planted into Tuya Lake), and 59,180 are mainstem stocks (Table 2). These estimates are based otolith recovery and analysis and scale pattern analysis in the U.S. Districts 106 and 108 catches; otolith analysis, egg-diameter stock-composition estimates for inriver catches from the Canadian commercial, aboriginal, ESSR, and test fishery catches; and escapement data. Analysis of the CPUE data from the commercial and test fisheries indicate a range in escapement estimates. The 2001 total run is 63.1% of average run of 201,817 sockeye salmon and 5.5% above the preseason forecast of 113,000 fish.

TAKU RIVER

Taku River salmon are harvested in the U.S. gillnet fishery in the Alaskan District 111, in northern Southeast Alaska seine and troll fisheries, and in the Juneau area sport fishery and inriver personal use fishery (Figure 2). Canadian fisheries for Taku River salmon include a commercial gillnet fishery located in the river near the Canada/U.S. border, an aboriginal fishery, and a sport fishery.

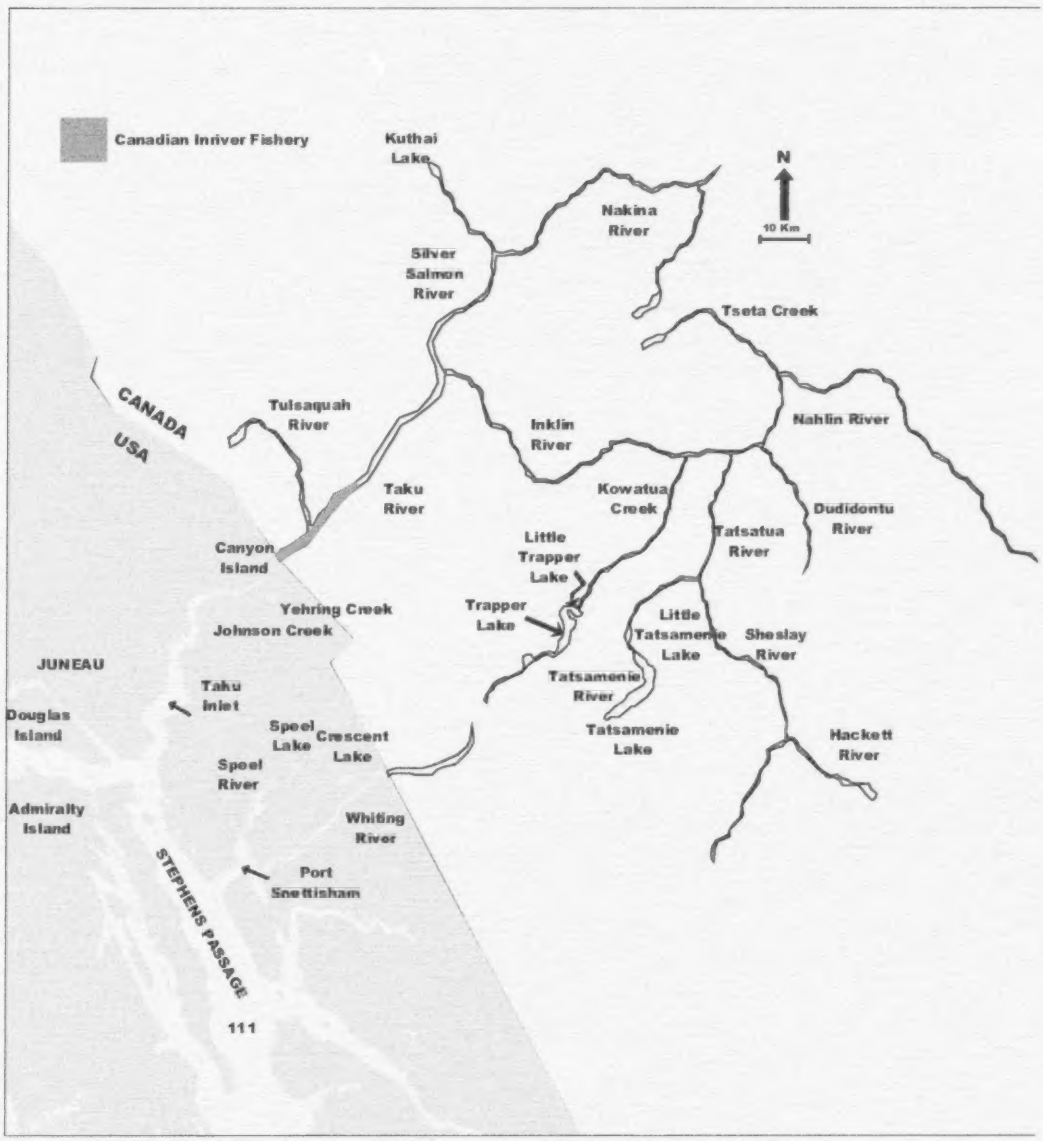

Figure 2. The Taku River and principal U.S. and Canadian fishing areas.

Harvest Regulations

New fishing arrangements were in place in 1999 as a result of negotiations between Canada and the United States of Annex IV, Chapter 1 of the Pacific Salmon Treaty. The arrangements that are expected to apply to the Taku River for the 1999 to 2008 period are as follows:

(1) Sockeye salmon:

(i) Except as noted below, Canada shall harvest no more than 18% of the TAC of the wild sockeye salmon originating in the Canadian portion of the Taku River each year;

(ii) If the projected inriver escapement is greater than 100,000 sockeye salmon, Canada may, in addition, harvest 20% of the projected inriver escapement above 100,000 sockeye salmon;

(iii) The Parties agree to manage the runs of Taku River sockeye salmon to ensure that each country obtains catches in their existing fisheries equivalent to each country's share of wild sockeye salmon and a 50% share of fish originating from Taku fry plants;

(iv) The Parties agree to continue the existing joint Taku enhancement program designed to produce annually 100,000 returning sockeye salmon.

(2) Coho salmon:

(i) The Parties agree to develop and implement an abundance-based approach to managing coho salmon on the Taku River no later than May 1, 2004. The Parties commit to developing a revised MSY escapement goal to be implemented no later than May 1, 2004.

(ii) Until a new abundance-based approach is developed, the management intent of the United States is to ensure a minimum above-border inriver run of 38,000 coho salmon, and the following arrangements will apply:

a. no numerical limit on the Taku River coho catch will apply in Canada during the directed sockeye fishery (through statistical week 33);

b. if inseason projections of above-border run size are less than 50,000 coho salmon, a directed Canadian harvest of up to 3,000 coho salmon is allowed for assessment purposes as part of the joint Canada/US Taku River mark-recapture program;

c. if inseason projections of above-border run size exceed 50,000 coho salmon, a directed Canadian harvest of 5,000 coho salmon is allowed;

d. if inseason projections of above-border run size exceed 60,000 coho salmon, a directed Canadian harvest of 7,500 coho salmon is allowed;

e. if inseason projections of above border run size exceed 75,000 coho salmon, a directed Canadian harvest of 10,000 coho is allowed.

(3) Chinook salmon:

(i) Both Parties shall take the appropriate management action to ensure that the necessary escapement goals for Chinook salmon bound for the Canadian portions of the Taku River are achieved.

(ii) The Parties agree that new fisheries on Taku River Chinook salmon will not be developed without the consent of both Parties. Management of new directed fisheries will be abundance-based through an approach to be developed by the Committee no later than May 01, 2004. The Parties agree to implement assessment programs in support of the development of an abundance-based management regime.

(iii) The Parties shall review an appropriate MSY escapement goal for Taku Chinook salmon by May 1999 and thereafter establish a new goal as soon as practicable.

U.S. Fisheries

The traditional District 111 commercial drift gillnet salmon fishery was open for a total of 55 days from June 17, 2001, through October 9, 2001 (Appendix C.1). The harvest totaled 1,696 Chinook, 290,450 sockeye, 22,529 coho, 122,829 pink, and 236,969 chum salmon. Harvests of Chinook, coho, and chum salmon were below average (Appendix D1). The harvest of pink salmon was average. The sockeye harvest was above average.

Hatchery stocks contributed substantially to the numbers of both sockeye and chum salmon harvested, and minor numbers to the harvest of other species. The 2001 season was the second year of substantial numbers of adult sockeye salmon returning to the Snettisham Hatchery inside Port Snettisham. These fish contributed significantly to the harvests primarily in Stephens Passage and to the Speel Arm Terminal Harvest Area fishery inside Port Snettisham.

The Chinook harvest of 1,696 fish was below average (Appendix D.1). Alaskan hatchery fish contributed 472 fish as estimated by coded wire tag (CWT) analysis, for approximately 27.8% of the harvest (Appendix C.1). The Taku River stock assessment program at Canyon Island above-border Chinook final estimate escapement was 45,934. The escapement goal range is from 30,000 to 55,000 Chinook salmon.

The sockeye harvest was an all-time record 290,450 fish (Appendices C.1 and D.1). Sockeye harvests were above average in all weeks of the summer fishery, as was weekly sockeye cpue. Weekly sockeye harvests were records for six of the nine statistical weeks (SW) in the summer fishery, SW25, SW27, SW30, SW31, SW32, and SW33. Weekly sockeye cpue was a record for SW25, SW31, and SW34. Domestic hatchery sockeye stocks started to contribute to the traditional fishery in SW27 and added significant numbers to the harvests in SW30, SW31, and SW32. Fishermen targeting on those runs of hatchery sockeye salmon and the Limestone Inlet hatchery chum salmon, increased the amount and percentage of fishing effort that occurred in Stephens Passage. Of the total sockeye harvest, 32% occurred in Stephens Passage; above average.

The catch of thermally marked sockeye salmon from fry plants was estimated inseason from analysis of otoliths. Sockeye salmon from a joint U.S./Canada fry-planting program at Tatsamenie Lake contributed an estimated 9,057 fish to the fishery (Appendix C.3). Contributions of domestic U.S. hatchery sockeye salmon to the District 111 gillnet fishery totaled 70,014 fish or 24.1% of the harvest. These were predominately Snettisham Hatchery fish but also included a small number of thermally marked fish from a fry-planting program at Chilkat Lake in upper Lynn Canal. Historical stock composition estimates were

applied to the remainder of the harvest to estimate contributions of Taku River and Port Snettisham stocks to the weekly harvests.

The final estimate of stock composition of the harvest of sockeye salmon in District 111 is 207,008 (71%) Taku River fish and 13,428 wild Snettisham fish (4.6%) (Appendix D.2). The estimated stock composition of the harvest of sockeye salmon in the traditional district was 197,951 (68%) wild Taku River, 9,057 (3%) planted Tatsamenie, 13,428 (5%) wild Port Snettisham, and 70,014 Snettisham hatchery fish (Appendices C.2 and C.3).

The final estimate of the Taku sockeye escapement from the mark-recapture program was 144,288 fish, which is above the upper escapement goal range (Appendices C.8 and D.9). Sockeye escapements to headwater lakes of the Taku River were very good, except for Kuthai Lake which had a poor escapement (Appendices C.9 - C.11, and D.10). Good sockeye escapements were apparent inside Port Snettisham (Appendix D.10).

The harvest total of 236,969 chum salmon was below average (Appendices C.1 and D.1). The summer chum harvest, 235,276 fish, comprised 99.0% of the season's harvest. The summer chum run was considered to last through mid-August (SW33) and was comprised mostly of domestic hatchery fish, with small numbers of wild stock fish contributing to the catches. Chum salmon runs to DIPAC hatcheries in Gastineau Channel and to the DIPAC remote release site at Limestone Inlet contributed a major portion of the harvest but quantitative contribution estimates were not available. As in recent years, a gear restriction of a minimum six-inch mesh size net was employed during the month of July in the fishery openings in Section 11-B south of Circle Point. This allowed harvest of hatchery chum salmon returning to the Limestone Inlet remote release site while limiting harvest rates on wild sockeye stocks. Approximately 60% of the District 111 chum harvest was made in Taku Inlet, 40% in Stephens Passage, and less than 1% inside Port Snettisham. The harvest of 1,693 fall chum salmon, SW34 and later, was 19.2% of average. Most of these chums are assumed to be wild fish of Taku and Whiting Rivers origin. The escapement to the Taku River was unquantified; however, the 250 fall chums passing through the fish wheels at Canyon Island was used as an index of escapement, and was a decrease from year 2000 (Appendix D.14). There is a long-term declining trend for fish wheel catches of chum, and the Taku chum stock may be in a depressed state.

The District 111 pink salmon harvest of 122,829 fish was average (Appendices C.1 and D.1). The escapement number to the Taku River was unquantified; however, the number of pinks passing through the fish wheel s at Canyon Island was used as an index of escapement. Fish wheel catches of pinks were below average, and pink salmon escapement to the Taku River was characterized as below average.

Coho stocks harvested in District 111 include runs to the Taku River, Port Snettisham, Stephens Passage, and local Juneau area streams as well as Alaskan hatcheries. The coho harvest of 22,529 fish was below average (Appendices C.1 and D.1). Weekly coho harvests were below average except for an above average harvest in Stephens Passage in SW32. Coho catch-per-unit effort was also below average for most weeks of the fishery, but improved to above average near the end of the fishery in SW37, SW39, and SW40. Alaskan hatchery coho salmon contributed 1,588 fish or 7.0% of the District 111 harvest. For most of the season, weekly estimates of Taku coho abundance indicated a below average run size; however, the final estimate of coho escapement above Canyon Island was 104,394 fish, surpassing the escapement goal of 35,000 (Appendices C.8 and D.12). Aerial surveys made on other streams in the district indicated the presence of coho salmon but the escapement totals were unquantified (Appendix D.13).

Fishing time was average (Appendices C.1 and D.1). The number of boats participating in the fishery was above average, and the 162 boats fishing in statistical week 32 (SW32) was a new record for the fishery.

Fishing effort as measured by the total number of boats delivering fish each week times the number of days open to fishing, was 4,731 boat-days for the season and was above average. Fishing effort for the summer fishery from SW25 through SW33 was a record 4,446 boat-days; above average.

Management actions to conduct the Taku drift gillnet fishery were limited to imposing restrictions in time, area and gear. In the first week of the season (SW25) which began June 17, three days of fishing time were allowed in both Taku Inlet (Subdistrict 111-32) and Stephens Passage (Subdistrict 111-31) (Appendices C.1 and D.1). The sockeye harvest in the first week was a record, as was sockeye cpue. The participation in the fishery, 96 boats, was also a record respective to the week. There was no extension of fishing time because of the high number of fishing boats. The initial inseason estimate of run size was delayed, and fishing time for SW26 was set for three days. Fishery participation in SW26 continued high, similar to that in SW25. The initial inseason projection of run size was very high. The conundrum for management was whether the inseason prediction of a strong run was real and to increase fishing time accordingly or to keep fishing time curbed because of the high number of boats fishing. At the end of SW26, the inseason projection of the total run size was 645,194 fish (Table 3). Fishing time was set at three days for SW27. In SW27, the inseason projection of run size remained high. The projected U.S. harvest was less than the projected U.S. TAC, and fishing time was extended for an additional 24 hours north of Circle Point in order to allow additional opportunity to harvest wild Taku sockeye salmon. Fishery participation continued high with 106 boats fishing, a record respective to SW27. Fishing time was set at three days for SW28. In SW28, the in-season projection of the run size remained high; however, there was no extension of fishing time because of management concerns with wild Snettisham sockeye stocks caught at Point Arden. In order to avoid extended fishing on wild Snettisham sockeye salmon at Point Arden and yet to increase fishing time for wild Taku sockeye stocks necessitated developing a fishery boundary line other than the Circle Point to Point Arden line. Fishery participation continued high with 121 boats fishing, a record respective to SW28. Fishing time was set at three days for SW29. In SW29, the inseason projection of run size remained high, and the projected U.S. harvest was less than the projected U.S. TAC. The fishery was extended for an additional 24 hours east of a line from Point Bishop to Pete's Rock in order to allow additional opportunity to harvest the large run of wild Taku sockeye salmon. Fishery participation continued high for the week. For the remainder of the summer fishery, SW30 – SW33, the Taku inseason run size projection was large, and the projected U.S. harvest was less than the projected U.S. TAC. Daily sockeye catches in the fish wheel s at the Canyon Island were consistently above average during this time period and several daily fish wheel catches established new records. Fishing time was extended to 4 and 5 days per week. For SW30 – SW32, record numbers of boats participated in the fishery, respective to the week.

Table 3. U.S. inseason forecasts of total run size, inriver run size, TAC, and the U.S. harvest of Taku River sockeye salmon for 2001.

Stat Week	Inriver Run	Total Run	Total TAC	U.S. TAC	Projected U.S. Harvest
25	454,116	727,222	652,222	534,822	273,106
26	338,690	645,194	570,194	467,559	306,504
27	238,411	467,369	392,369	321,742	228,958
28	167,186	360,831	285,831	234,382	193,646
29	184,166	394,056	319,056	261,626	209,890
30	210,903	397,998	322,998	264,859	194,614
31	240,649	421,040	346,040	283,753	186,688
32	212,065	409,154	334,154	274,006	202,676
33	211,342	416,247	341,247	279,823	198,305
Postseason	192,245	395,459	320,459	262,776	203,214

Inseason U.S. TAC calculated as 82% of the total TAC and was not adjusted for change in harvest share when the escapement exceeds 100,000 sockeye salmon. The model was altered in week 30 to account for the 50/50 harvest sharing of planted Tatsamenie fish.

During the summer fishing season, fishing time and gear in Stephens Passage south of Circle Point differed from that in Taku Inlet in order to effectively harvest the run of hatchery summer chums. A mesh size restriction of a minimum six-inch web opening was imposed during the month of July in Section 11-

B south of Circle Point. This allowed harvest of hatchery chum salmon from the Limestone Inlet remote releases while limiting harvest rates on wild sockeye stocks. Lower Stephens Passage (Subdistrict 111-20) was open to fishing beginning August 5 when a harvestable surplus of pink salmon became available. Port Snettisham (Subdistricts 111-33/-34/-35) was closed to fishing through early August to limit catch rates on wild Crescent and Speel sockeye runs. By early August, assessment programs indicated good escapements to both Crescent and Speel Lakes, and beginning August 12, portions of Port Snettisham were opened to fishing each week, primarily to harvest the hatchery sockeye returning to Snettisham Hatchery.

The fall fishing season in District 111 lasted eight weeks, from August 19 in SW34 until October 9 in SW41. In the first week of the fall season, fishing time was set at three days to allow continued opportunity to harvest the strong run of wild sockeye salmon in Taku Inlet and hatchery sockeye salmon in Stephens Passage and Port Snettisham. For SW35 through SW37, two day fishery openings were allowed each week. This course of action was taken both to limit harvest on a perceived weak Taku coho run and to conserve fall Taku chum stocks. When the coho mark-recapture program indicated the escapement goal would likely be met, fishing time was increased to three days in SW38. The fishery was intended to close upon completion of two days of fishing in SW39; however, the coho catch rate increased sharply to well above average and the coho inseason abundance estimate increased markedly to 78,000 fish in the river. The fishery was continued for three more days in SW40, and for two more days in SW41 primarily for stock assessment purposes.

Several other fisheries in the Juneau area harvested transboundary Taku salmon stocks in 2001. Personal use permits were used to harvest an estimated 1,462 Taku sockeye salmon (Appendix D.4). The spring Juneau-area sport fishery harvested an estimated 2,232 large Chinook (28 inches or longer) and 23 non large Chinook salmon. Of the large fish, 1,437 (64%) were wild mature fish. A number of stocks are known to contribute to the sport fishery, including those from the Taku, Chilkat, and King Salmon rivers, and local hatchery stocks. The major contributor is large, wild mature fish from the Taku River through mid-May and Alaska hatchery fish thereafter. The July Hawk Inlet shoreline purse seine fishery operating north of Point Marsden in Chatham Strait had one opening this year. The fishery targets early runs of northbound pink salmon stocks, and may include Taku pink stocks. Of the harvest of 10,567 sockeye salmon in the Hawk Inlet fishery, 206 fish (2% of the harvest) were of Taku River origin, from results of thermal mark analyses of otoliths samples.

Canadian Fisheries

Taku River commercial fishers harvested 1,458 large Chinook, 118 non large Chinook (fish less than 2.3 kg), 47,660 sockeye, and 2,568 coho salmon (Appendix C.4). Catches of all species except sockeye salmon were below average. The sockeye catch was above average (Appendix D.5). Fish originating from fry plants contributed an estimated 1,868 fish to the catch, comprising 3.9% of the total sockeye harvest (Appendix D.6). A total of 42 days was fished and the seasonal fishing effort of 382 boat-days; both were average. As in recent years, both set and drift gill netting techniques were utilized with the majority of the catch taken in drift gillnets. Mesh sizes were restricted to less than 150 mm through July 16 to minimize the incidental catch of Chinook salmon. No fish wheel was operated in the commercial fishery in 2001.

In addition to the commercial catches 125 Chinook , 210 sockeye (77 from Kuthai Lake and 133 from the lower Taku River), 500 coho, and 25 chum salmon were harvested in the aboriginal fishery in 2001 (Appendix D.7). The average catches in the Taku aboriginal fishery have included 66 Chinook, 242 sockeye, 142 coho, and 1 chum.

The final inseason forecast of the inriver coho run ranged from 45,828 to 73,650 fish. Accordingly as per PST provisions, the Canadian allowable catch after week 33 was 3,000 to 7,500 salmon. Of the total

commercial catch, 772 coho salmon were caught after week 33; all of the coho catch in the Aboriginal fishery occurred after week 33. The combined commercial and AF post week 33 catch was 1,374 coho salmon.

According to the final postseason run estimate of 400,715 sockeye salmon, the Canadian sockeye catch (excluding test fishery catches) represented approximately 15.5% of the TAC (Table 5). An estimated 1,868 fish of the total Taku sockeye run originated from fry plants at Tatsamenie Lake. The contribution of planted fish to the sockeye catches was estimated to be 1,868 of which 8 were harvested in Canadian commercial or aboriginal fisheries. This represented approximately 11% of the TAC of planted fish.

A spring test fishery was conducted from April 29 to June 15 as a component of the Chinook mark-recapture program. This test fishery landed 1,175 large Chinook, 229 non large Chinook, and 245 sockeye salmon. An additional 871 large female Chinook salmon were released (Appendix C7 and D.8).

As part of the coho mark-recapture program, a live-release fishery was conducted on coho salmon from September 1 to October 10. Totals of 3,007 coho, 84 sockeye, and 159 chum salmon were caught. All but 31 coho and 2 sockeye salmon were released.

The Canadian preseason forecast was for a run of approximately 250,000 sockeye salmon, which was the average of a sibling-based forecast of 264,300 fish and a forecast of 236,600 fish based on stock-recruitment data. The point estimate was 12% above the previous 1991-2000 average run of approximately 224,000 sockeye salmon (Canadian estimate). The preseason forecast was used to guide weekly management actions for the first week of the season; thereafter, inseason forecasts based on the joint Canada/U.S mark-recapture program at Canyon Island were used (Table 4). For coho salmon, the preseason outlook was for an above average run due to the high number of smolt captured in the 2000 coded-wire tagging program.

Table 4. Canadian inseason forecasts of total run size, total allowable catch (TAC), and spawning escapement of Taku sockeye salmon, 2001.

Stat. Week	Total Run	TAC	Projected Escapement	Canadian TAC	Inseason guideline	Actual Catch
25	250,000	162,500	75,000	29,250	1,399	2,118
26	545,948	470,948	357,268	136,224	13,846	6,348
27	408,792	333,792	222,103	84,503	16,087	10,276
28	347,777	272,777	145,630	58,226	17,453	13,387
29	376,648	301,648	148,816	64,060	25,718	23,028
30	471,141	396,141	194,475	90,200	48,102	30,429
31	524,018	449,018	213,306	103,484	66,944	38,776
32	510,858	435,858	165,252	91,505	70,918	44,162
33	508,865	433,865	164,140	90,924	79,632	46,967
34	489,243	414,243	153,296	85,223	79,513	47,502

The commercial fishery commenced at noon on Sunday, June 17 (statistical week 25) for a scheduled opening of two days. Since the incidental catch of Chinook salmon was relatively low and the sockeye CPUE was record high, the fishing period was extended by one day.

As in previous years, cumulative guideline harvests were developed each week to guide weekly management decisions so that: a) the catch was consistent with conservation and Treaty goals; and b) management was responsive to changes in forecasts of abundance, i.e. abundance based. The guidelines

were based on current inseason forecasts of the Canadian sockeye TAC (based on mark-recapture estimates) apportioned by historical run timing.

In week 26 (ending June 30) the fishery was opened on three days. After day 2, the total run forecast was 268,896, and there were 4,711 more sockeye salmon allowed for harvest to take as per the treaty guideline. CPUE more than doubled on the third day of the fishery, when a total of 2,443 sockeye salmon were caught. Despite this, the fishery was closed as scheduled because there was concern that the CPUE was inflated by a rapid drop in water levels.

The run forecast used in week 27 (ending July 7) increased to a range of 288,012 (assuming the run was one week early) to 539,442 sockeye salmon, and total season spawning escapement predictions ranged from 190,748 to 357,268 fish. The weekly fishing time was initially posted at three days, however a one-day extension was provided in to attempt to harvest some of the surplus indicated by the weekly guideline harvest. Additional time over and above the four days was not fished because of below average CPUE in the last day of fishing.

The week 28 (ending July 14) fishery opened on three days. It was closed as scheduled due to a drop in fish wheel catches to less than 100 fish per day. CPUE for the week was average.

Week 29 (ending July 21) also opened on three days. CPUE for the week increased to 212 sockeye per boat-day (Appendix C.4), which was 2.5 times average of 85 fish/boat-day. The primary fish buyer stopped accepting fish due to the high volume for a period of time so the majority of fishers did not fish for about 9 hours on day 3. The fishery was extended another 12 hours after Day 3. The final sockeye catch of 9,641 fish was both the highest weekly catch for the season, and on record for the week.

CPUE remained well above average in week 30 (ending July 28), which opened on three days. By the end of day 2, the cumulative catch was only 64% of the weekly guideline of 42,886 (assuming normal run timing). Consequently, the fishery was extended for 2 days. However, effort, which had been building over the course of the week, decreased dramatically on day 5. This was again due to volume-related marketing difficulties.

In 2000, through preseason planning consultations with the US, it was agreed that special efforts would be undertaken by both Parties to increase the spawning escapement of Tatsamenie sockeye salmon over recent years. The Canadian management plan in 2000 specified that for weeks 31 through 33, fishing time would be limited to a maximum of 3 days/week. This management action was to be accompanied by similar restrictions in the U.S. District 111 fishery. Extensions of fishing time above prescribed levels in each country's fisheries would only be considered after consultation and agreement between fishery managers of the two countries. Consequently in 2000, fishing times were limited to three days/week for weeks 31-33.

In 2001, in light of a favourable forecast for Tatsamenie sockeye salmon, it was felt that a pre-arranged limit of 3 days was unnecessary, but special consideration should be given to increasing the escapement of this stock above normal target levels and providing sufficient broodstock for the fry planting program.

Considerations for restricting the fishery in week 31 (ending August 4) proved to be unnecessary as CPUE continued to be well above average. The fishery was opened on 3 days and extended by 2. However, as per the previous two openings, effort was curtailed by marketing problems near the end of the week; fishing stopped almost completely at midnight on Day 4 and did not resume.

Weeks 32 and 33 (weeks ending August 11 and 18, respectively) were opened on 4 days due to the need to make up guideline harvest shortfall, and the high CPUE. After day 3 in Week 32, the fishery was

extended to 5 days as CPUE and fish wheel catches continued to be high. Again, the latter part of the week saw low effort, but this time due to the Tulsequah flood which started on Day 4. In week 33, despite favourable fishing conditions, CPUE dropped off considerably to about average levels. By mid-week the fish wheel catch had dropped to below average. Consequently, there was no extension beyond four days.

Despite the overall shortfall in the catch compared to the guideline harvest (46,896 vs 76,690), fishing time was kept to three days in week 3 (ending August) due to declining sockeye abundance as evidenced by below average commercial sockeye CPUE, declining fish wheel catches of sockeye salmon at Canyon Island and concerns over below average early season coho abundance. The weekly catch was 535 sockeye and 590 coho salmon.

Week 34 essentially marked the end of the commercial fishing season as the primary buyer ceased accepting fish. Despite being opened for 3 days in week 35, 5 days in week 36 and continuously from September 17 (week 38) through October 12, there were only three boat days of fishing. These occurred in week 39 (ending September 29) and accounted for a catch of 182 coho salmon.

The cumulative commercial sockeye CPUE over the season totaled 1,169 sockeye/fisher/day, 46% of average of 803 and just short of the record of 1,174 sockeye/fisher/day set in 1996. Based on the CPUE, run timing appeared to be earlier than usual in 2001, with two distinctive peaks in weeks 26, and 29. Normally, sockeye CPUE peaks in week 32.

The cumulative coho CPUE through week 34, 83 coho/fisher/day, was 22% below average of 106 coho/fisher/day. Based on this, the strength of the early part of the run appeared to be below average.

Escapement

Sockeye

Spawning escapement of sockeye salmon in the Canadian portion of the Taku River drainage is estimated from the joint Canada/U.S. mark-recapture program. Counting weirs operated by DFO at Little Trapper and Tatsamenie lakes provide information on the distribution and abundance of discrete spawning stocks within the watershed. An additional sockeye enumeration program was conducted at Kuthai Lake by the TRTFN in 2001.

A mark-recapture program has been operated annually from 1984 to 2001 to estimate the above-border run size (i.e., border escapement); spawning escapement is then estimated by subtracting the inriver catch. The final 2001 estimate of border escapement is 192,245 sockeye salmon and the spawning escapement is estimated at 144,287 fish (Table 5). This spawning escapement is 43.7% higher than average of 100,385 fish (Appendix D.9), and is 80.4% above the upper end of the interim escapement goal range of 71,000 to 80,000 sockeye salmon.

Table 5. Taku sockeye salmon run reconstruction, 2001. Estimates do not include spawning escapements below the U.S./Canada border.

	Taku			Snettisham Stocks		
	Total	Wild	Planted	Total	Wild	Hatchery
Escapement	144,128	138,772	5,356	Not Available		
Canadian Harvest						
Commercial	47,660	45,792	1,868			
Food Fishery	210	202	8			
Total	47,870	45,994	1,876			
Test Fishery Catch	247	237	10			
Above Border Run	192,245	185,003	7,242			
U.S. Harvest a						
District 111	207,008	197,951	9,057	83,442	13,428	70,014
Personal Use	1,462	1,398	64			
Total	208,470	199,349	9,121			
Test Fishery Catch	0					
Total Run	400,715	384,352	16,363			
Taku Harvest Plan	Wild	Planted	Total			
Escapement Goal	75,000	0	75,000			
TAC	309,352	16,363	325,715			
Canada						
Base Allowable	55,683	8,181	63,865			
Surplus Allowable	8,826		8,826			
Total	64,509	8,181	72,690			
Total %	20.9%	50.0%	22.3%			
Actual	45,994	1,876	47,870			
Actual %	14.9%	11.5%	14.7%			
U.S.						
Total	253,669	8,181	261,850			
Total %	82.0%	50.0%	80.4%			
Actual	199,349	9,121	208,470			
Actual %	64.4%	55.7%	64.0%			

a U.S. harvest estimate differs from Joint Interception Committee estimate because no estimates are made for catches other than the listed fisheries.

The escapement through the Little Trapper Lake weir was 16,860 sockeye salmon, which is above average (Appendix C.10 and D.10). An estimated 8,049 females spawned in 2001, comprising 47.7 of the total run (n=741).

The Tatsamenie Lake weir count in 2001 was 22,575 sockeye salmon (Appendices C.9 and D.10). This is above average. The estimated sex composition was 43.2% female i.e. 9,744 fish (n=738). A total of 1,552 females and 1,444 males were held for broodstock; gametes were collected from 1,045 females and 900 males. The broodstock holding mortality included 221 females and 160 males. Totals of 273 females and

213 males were released unspawned, either because they were not ripening or the egg take target had been exceeded.

The sockeye count through the Kuthai Lake weir was 1,663 fish, which is below average (Appendices C.11 and D.10).

Chinook

Spawning escapement of Chinook salmon in the Canadian portion of the Taku drainage was estimated from the joint Canada/U.S. mark-recapture program. Tag application occurred April 28 through July 17 (statistical weeks 17 - 29). Tag recovery in the test and commercial fisheries occurred April 29 through August 1 (statistical weeks 18 - 31), and on the spawning grounds in August and September. The recovery effort consisted of commercial, test, and aboriginal fisheries. The final above-border run estimate was 49,598 large (three-ocean and larger) Chinook salmon. The final spawning escapement estimate was 46,644 large. The spawning escapement of large Chinook salmon was below average, but within the escapement goal range of 30,000 to 55,000 fish.

Aerial surveys of large Chinook salmon (three-ocean and larger) to the six escapement index areas annually surveyed by ADF&G were as follows: Nakina, 1,552 fish; Kowatua, 1,050 fish; Tatsamenie, 1,024 fish; Dudidontu, 479 fish; Tseta, 202 fish; and Nahlin, 935 fish (Appendix D.11). The total of 5,040 large Chinook salmon observed was below average and was the second lowest count obtained during this period.

A carcass weir was again operated by the TRTFN on the Nakina River to obtain tag and age-length-sex data on Chinook salmon. A total of 1,965 Chinook salmon were sampled.

As in recent years, the Nahlin River weir was not installed due to concerns that it would impede Chinook migration.

Coho

Spawning escapement of coho salmon in the Canadian portion of the Taku drainage was estimated from the joint Canada/U.S. mark-recapture program. Tag application occurred through October 5 (statistical week 40). Tag recovery occurred through October 10 (statistical week 41). The recovery effort consisted of commercial, test, and aboriginal fisheries. The final above-border escapement was estimated to be 107,493 fish and the spawning escapement was estimated at 104,394 fish (Appendix C.8). The spawning escapement was above average and more than three times the upper limit of the interim escapement goal range (27,500 to 35,000 fish).

Pink

A total of 9,134 pink salmon was counted at the Canyon Island fish wheels in 2001. (Appendix D.15). There was no program in place to estimate the escapement of pink salmon to the Taku River in 2001. The pink salmon count at the fish wheels was below average.

Chum

There was no program in place to estimate the system-wide escapement of chum salmon. A total of 250 chum salmon was captured in the Canyon Island fish wheels, which was below average (Appendix D.14).

The Taku River fall chum run has been depressed since 1988. It is unlikely that the spawning escapement goal of 50,000 to 80,000 chum salmon was achieved in 2001.

ALSEK RIVER

Alsek River salmon stocks contribute to the U.S. commercial gillnet fisheries located in Dry Bay, at the mouth of the Alsek River (Figure 3). Unknown quantities of Alsek origin fish are also taken in the U.S. commercial gillnet and troll fisheries in the Yakutat area. No commercial fishery exists in the Canadian portions of the Alsek River drainage, although aboriginal and recreational fisheries occur in the Tatshenshini River and some of its headwater tributaries (Figure 3).

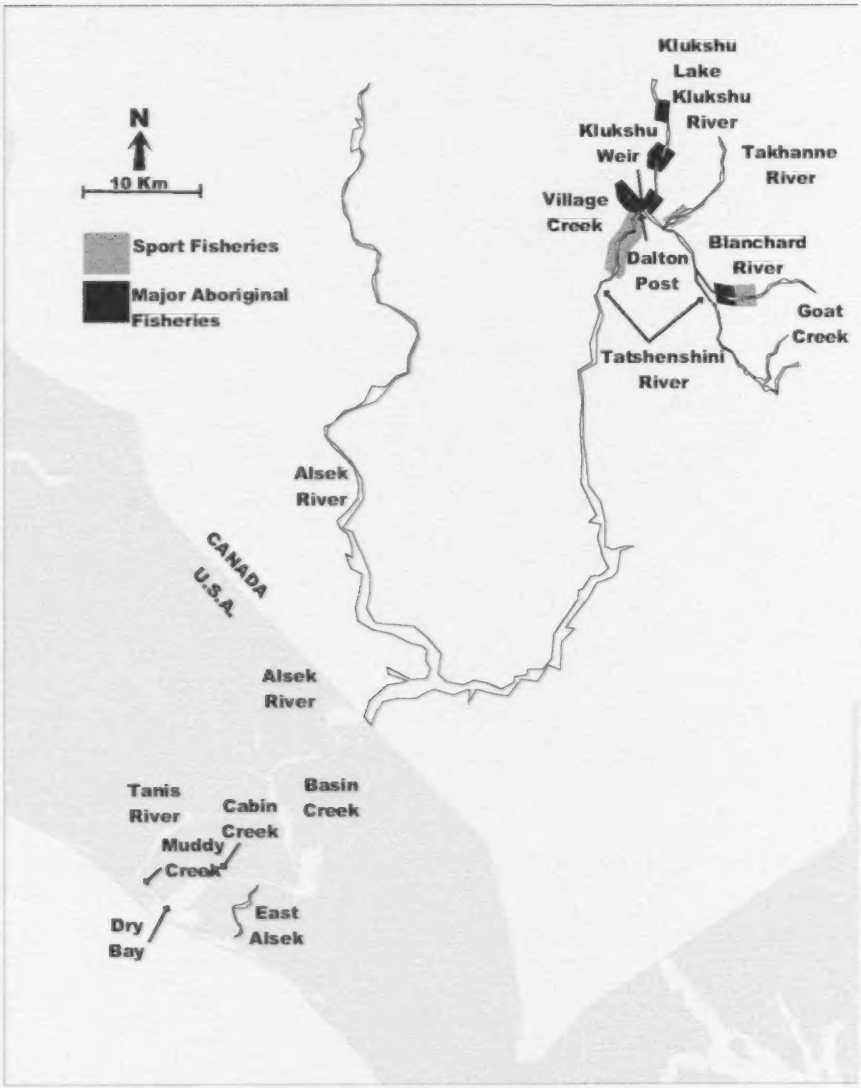

Figure 3. The Alsek River and principal U.S. and Canadian fishing areas.

Harvest Regulations & Management Objectives

Although catch sharing of Alsek salmon stocks between Canada and the U.S. has not yet been specified, Annex IV does call for the development and implementation of cooperative abundance-based management plans and programs for Alsek Chinook, sockeye and coho salmon. Interim escapement goal ranges for Alsek sockeye and coho salmon were initially set by the TTC at 33,000 to 58,000 sockeye, and 5,400 to 25,000 coho salmon. However, stock assessment projects to determine system-wide escapements are currently being developed. The principle escapement-monitoring tool for Chinook, sockeye, and coho salmon stocks on the Alsek River is the Klukshu weir, operated by DFO and the Champagne-Aishihik First Nation. The weir has been in operation since 1976. To make the management objectives of Chinook and sockeye salmon better defined in terms of Klukshu stocks, revised goals, expressed in terms of Klukshu stocks only, were established for 2001.

The initiative to establish a specific Klukshu Chinook spawning goal began in 1991 when the TTC set an interim spawning objective of 4,700 Klukshu Chinook salmon. This goal was based more on manager's intuition than on science. From 1995 through 1997, the TTC reviewed this escapement level and concluded that goal of 4,700 Chinook salmon was not supported by the data. A new goal range of 1,100 to 2,300 fish was proposed based on joint analyses of stock-recruitment data (McPherson et al 1998).

The stock-recruitment analysis of Klukshu sockeye data has been completed and has undergone internal peer review (Clark and Etherton 2000). The new escapement goal range for Kluckshu River sockeye salmon is 7,500 to 15,000 spawners per year.

Programs are currently under development to estimate the inriver run size of Alsek Chinook and sockeye salmon. Mark-recapture estimates of total inriver abundance have been generated since 1998 for Alsek Chinook salmon and since 2000 for sockeye salmon.

Preseason Forecasts

The overall sockeye run to the Klukshu River in 2001 was expected to be below average in strength. Principal contributing brood years to the 2001 run were expected to be 1996 (Klukshu escapement of 7,891 sockeye salmon) and 1997 (Klukshu escapement of 11,303 sockeye salmon); average Klukshu escapement was 12,784 fish. Based on historical stock-recruitment analysis, the range of Klukshu escapements that appear most likely to produce maximum sustained yields is 7,500 to 15,000 sockeye salmon.

The 2001 overall Alsek sockeye run was expected to be approximately 27,000 fish. This estimate was based on: a predicted run of 8,600 Klukshu sockeye salmon derived from the average of the historical Klukshu stock-recruitment data and a return/female spawner of 2:1; and an assumed Klukshu contribution to the total run of 32%. A run size of this magnitude is below the average run size estimate of approximately 46,000 fish (based on the Klukshu weir count expanded by 1/0.35 to account for other inriver escapement and an assumed U.S. harvest rate of 0.20).

The Klukshu early-run sockeye escapements in 1996 and 1997 were 1,502 and 6,565, respectively. The 1997 escapement was approximately twice the average but the predominant brood year (1996) was well below the optimum level of 2,500 sockeye spawners as estimated from stock-recruitment analyses by F&OC of the early run. Therefore the early run was expected to be below average.

The Klukshu Chinook escapements in 1996 and 1997, 3,382 and 2,829 Chinook salmon, respectively, were above average. However, the escapements were above the optimum escapement range of 1,100 to 2,300 Chinook salmon as determined from current stock-recruitment analysis. As a result, the preliminary outlook was for a below average run. The 2001 overall Alsek Chinook run was expected to be approximately 11,000 fish salmon. This estimate was based on: a predicted run of 2,000 Klukshu Chinook salmon derived from the average of the historical Klukshu stock-recruitment data and a return/female spawner of 1.04:1; and an assumed Klukshu contribution to the total run of 18%.

The coho escapements observed at the Klukshu River in 1997 (300 coho salmon but incomplete count) and 1998 (2,000 coho salmon) suggests the run in 2001 would be below average based on a weak brood year in 1997. The average escapement was 2,826 coho salmon.

U.S. Fisheries

The Dry Bay commercial set gillnet fishery harvested 541 Chinook, 13,995 sockeye, 2,909 coho, 8 pink salmon, and 17 chum salmon (Appendix E.1). The fishery was open for 51 days, which was average (Appendix E.4). The majority of fishing time (32 days) occurred late in the season (mid-August through October) after the sockeye run had largely passed through the fishery. The total number of days fished during the bulk of the sockeye run was 18. The total effort expended in the fishery was 234 boat-days, which was below average. The preliminary estimate of subsistence harvests included 19 Chinook, 72 sockeye, and 45 coho salmon (Appendix E.5).

The Alsek sockeye harvest of 13,995 fish was below average (Appendix E.4). There was no reported harvest from the Alsek surf area in 2001. Adjustments to the weekly fishing periods during the sockeye season relied heavily on fishery performance data; the decision of whether or not to extend any given period was initially based on catch and CPUE data gathered inseason during that particular period. From week 30 through 34 management was also based on Klukshu weir sockeye counts. The Alsek management model was again not used this year as a management tool because of unreliable run estimates produced in past years.

The Alsek River was opened to commercial fishing during statistical week 23, the first Monday in June (June 4). The initial opening in week 23 was limited to 24 hours in order to evaluate Chinook and sockeye run strengths. Fishery performance (CPUE) indicated that the sockeye harvest was well below historical levels and fishing time was not extended. CPUE continued to be below average during the following week of the season (statistical week 24) and fishing time remained at 24 hours. Fishing time was increased to 48 hours during statistical week 25 because CPUE was more than double the average for the week. CPUE dropped again during week 26 and the fishery was not extended beyond 24 hours. For the next four weeks (statistical weeks 27 through 30) fishing time was extended to 48 hours because CPUE remained well above average. Fishing time was not extended beyond 48 hours, regardless of CPUE, specifically to protect Klukshu River sockeye salmon. Fishing time was extended to 48, and then to 72 hours during week 31. CPUE remained very high during this week, and the majority of the Klukshu sockeye stock had cleared the fishery by this time. Fishing time was again restricted to one day during statistical weeks 32 and 33 due to below average CPUE values.

Historically, a set gillnet fishery targeting on Chinook salmon was conducted during May and early-June. Due to depressed runs, the directed fishery has been closed since 1963 and Chinook salmon have only

been harvested incidentally during the sockeye fishery in early June. From 1963 through 1997, the early June periods were limited in time in order to reduce the impact on Chinook salmon. With the advent of the new Chinook escapement goal concern for incidentally caught Chinook salmon has diminished so the management of the early June periods was based on sockeye CPUE. Gillnet mesh size was restricted to a maximum of six inches through July 1. The Chinook harvest of 541 fish was average (Appendix E.4). Approximately 82% of the Chinook catch (443 fish) was taken during the first three weeks of the season.

The coho harvest of 2,909 fish was below average (Appendix E.4). Escapement of coho salmon at the Klukshu weir was below average. Fishing periods remained at 3 days per week from week 34 through the end of the season. Effort for coho salmon remained well below historical levels, and the river was open, but not fished, during the last six weeks of the season.

Canadian Fisheries

The aboriginal fishery harvested an estimated 120 Chinook and 1,158 sockeye salmon (Appendices E.2 and E.6). The catches of Chinook, coho, and sockeye salmon were below average.

Catches in the Tatshenshini recreational fishery were well below average for Chinook and sockeye salmon with an estimated 157 Chinook, 4 sockeye salmon, and above average for coho salmon with 94 of this species harvested (Appendices E.2 and E.6). The low Chinook catches were attributed to unusually high water conditions throughout the summer fishing season and the low sockeye catches were attributed to the reduced effort observed during the peak of the sockeye migration. The catch data was derived from a creel census program conducted in the Dalton Post area by the Klukshu weir personnel.

Management of salmon in the Yukon is a shared responsibility between Fisheries and Oceans Canada (F&OC) and the Yukon Salmon Committee (YSC). The YSC was established in 1995 pursuant to the Comprehensive Land Claim Umbrella Final Agreement between the Government of Canada, the Council for Yukon Indians and the Government of the Yukon. The Committee is a public board consisting of ten members, 70% of which are appointed by Yukon First Nations. Two Champagne-Aishihik First Nation (CAFN) members sit on the YSC. Although the Committee currently operates by consensus, the voting structure of the Committee is organized so that, should a vote be necessary, 50% of the votes reside with appointees of Yukon First Nations.

The 2001 Alsek-Tatshenshini management plan, adopted by CAFN, YSC, and DFO, was based on the objectives described in the ***Harvest Regulations & Management Objectives*** section above. For Chinook and early sockeye management, the status of the Klukshu weir counts was to be reviewed on or about July 18 to ensure weir and spawning escapement targets were on track. The status of the late sockeye run would be reviewed the first week of September. Adjustments to inseason fishing regimes in the sport and aboriginal fisheries would be made if deemed necessary. Other key elements of the plan are described below.

The center of aboriginal fishing activity in the Alsek drainage occurs at the Champagne/Aishihik First Nation village of Klukshu, on the Haines road, about 60 km south of Haines Junction. Salmon are harvested by means of gaff and traditional fish traps as the fish migrate up the Klukshu River into Klukshu Lake. The fishing plan for the aboriginal fishery in the Klukshu River for the period prior to August 15 allowed fishing by means of fish traps for 2 days per week. After August 15, it was planned that the traps would be fished 3 days per week. Conservation thresholds that might invoke restrictions in the Aboriginal fishery were projected Klukshu weir counts of <1,100 Chinook and <1,500 early sockeye salmon. Gaff fisheries also exist on Village Creek and in the headwaters of the Tatshenshini River and tributaries thereof (Goat Creek, Stanley Creek, Parton River, and the Blanchard River). The plan did not

restrict the gaff fishery other than to reserve Goat Creek, Stanley Creek, and the Parton River for elders only.

The majority of the sport fishing effort on this drainage occurs on the Tatshenshini River, at and just downstream of the mouth of the Klukshu River in the vicinity of the abandoned settlement of Dalton Post. The management plan prohibited the retention of sockeye salmon in the recreational fishery prior to August 15 unless the weir count projection for the early run was >4,500 sockeye salmon. The daily catch limit was one fish and the possession limit was 2 Chinook salmon. For other salmon species, the daily catch and possession limits were 2, and 4, respectively. However, the aggregate limit for all salmon combined was 2 salmon per daily, 4 in possession. Sport fishing in the Dalton Post area was initially to be open from 6:00 am Saturday to 12:00 noon Tuesday each week. Headwater areas upstream of the British Columbia/Yukon border were to be closed for the season to protect spawning Chinook salmon. Conservation thresholds that were expected to invoke additional restrictions in the sport fishery were projected Klukshu weir counts of <1,500 Chinook and <10,600 sockeye salmon (early and late runs combined).

A mandatory Yukon Salmon Conservation Catch Card (YSCCC), introduced by the Yukon Salmon Committee in 1999, was required by all salmon sport fishers in 2001. The purpose of the YSCCC is to improve harvest estimates and to serve as a statistical base to ascertain the importance of salmon to the Yukon sport fishery. Anglers are required to report their catch via mail by the late fall. Information requested includes: the number, sex, size, date and location of salmon caught and released.

Over the past three years, major changes in the Tatshenshini River channel have redefined the location of the mouth of the Klukshu River and have resulted in the weir being in closer proximity to the mouth, i.e. the mouth of the Klukshu River has moved approximately 200 m upstream. This has decreased the distance between where salmon hold prior to entering the Klukshu River and where they encounter the weir. Concerns have been expressed that salmon no longer have adequate room to resume a normal upstream migration before reaching the weir.

The YSC discussed this concern with CAFN and F&OC and it was agreed that a sub-committee of representatives from these three groups would be formed to examine the weir issue in detail. The result of the sub-committee deliberations was a recommendation for the weir to be moved further upstream to a site agreeable to the CAFN and F&OC. After several site investigations, a location was chosen and the weir was re-located for the 2001 season.

The FN (recreational fishing is closed in this area) has much more actively fished the new holding/staging area at the mouth of the Klukshu River since the Tatshenshini River channel changes occurred. When fishing activity is intense, very few fish migrate upstream and many seek refuge further downstream in the turbid waters of the Tatshenshini River. In 2001, an area closure from the Klukshu River bridge crossing up to the new weir location was imposed in the FN fishery by CAFN to allow for better staging opportunities in the vicinity of the Klukshu/Tatshenshini confluence.

Escapement

Total drainage abundance programs are currently being developed to accurately assess whether the system-wide escapement goals for Alsek Chinook and sockeye stocks are being met. At this time, there are no programs in place to estimate the drainage-wide coho escapement. A large and variable proportion of the escapement of each species is enumerated at the weir on the Klukshu River. Current escapement monitoring programs including the Klukshu weir, Village Creek electronic counter, and aerial surveys allow annual comparisons of escapement indices. The most reliable comparative escapement index for

Alsek drainage salmon stocks is the Klukshu River weir count. Escapements for 2001 are given in Table 6.

Table 6. Catch and Kluskhu index escapement data for Alsek sockeye, Chinook, and coho salmon for 2001.

	Sockeye	Chinook	Coho
Escapement Index a			
Klukshu Weir Count	10,290	1,825	748
Klukshu Escapement	9,329	1,738	746
Harvest b			
U.S. Commercial	13,995	541	2,909
U.S. Subsistence	72	19	45
Canadian Sport	4	157	94
Canadian Aboriginal	1,158	120	5
Total	15,229	837	3,053

a Klukshu River salmon stocks represent an assumed large and variable portion of the total Alsek River salmon escapement.
b U.S. harvest estimate differs from Joint Interception Committee estimate because no estimates are made for catches other than the listed fisheries.

Sockeye

The 2001 Klukshu River sockeye salmon weir count was 10,290 and the escapement was 9,495 fish (Table 6), and was below average of early-run fish (count through August 15) and average of late-run sockeye salmon (Appendix E.7). The sockeye count at Village Creek was 2,487 in 2001 which was below average. (Appendix E.8).

The sockeye mark-recapture program initiated in 2000 to explore the feasibility of developing an abundance-based management regime for Alsek sockeye salmon was continued in 2001. The final estimate of the total inriver run using a Darroch estimate is approximately 45,231 sockeye salmon (m=1,228, r=69, c=1,930), with a 90% CI range of 23,143 to 39,185 fish. The Klukshu weir count therefore represented approximately 23% of the total Alsek inriver run in 2001, substantially below previously published contributions ranging from 37% to 60%. The estimated contribution of Nesketaheen sockeye salmon to the total Alsek run was approximately 7%. In 2001, a radiotagging study was initiated to determine the run timing and distribution of sockeye salmon in the Alsek River drainage. In total, 309 radio tags were applied to migrating sockeye salmon captured above the U.S. commercial fishery. Of these, 244 radio tags were tracked and assigned a destination. Fifty-three tags were found in the Klukshu River system, 30 were located in Village Creek/Nesketaheen Lake, 24 were assigned to the Blanchard River system, 76 were known to have spawned in the mainstem Tatshenshini River, and 60 were found in the mainstem Alsek River. Five radio tags were known to have dropped out of the study area and one tag was recovered in the Tatshenshini River sport fishery.

Comparative counts for other Alsek index tributaries appear in Appendix E.9. Basin Creek was not surveyed in 2001 while the count of 700 sockeye salmon in the Tanis River was above average.

Chinook

The most reliable comparative Chinook escapement index for the Alsek drainage is the Klukshu River weir count. The 2001 Chinook weir count was 1,825 and the escapement count was 1,738 (Table 6), and

were both below average (Appendix E.7). The 2001 escapement was within the revised interim escapement goal of 1,100 to 2,300 Klukshu Chinook salmon.

Aerial Chinook surveys were again flown in 2001. The count of 543 Chinook salmon in the Blanchard River and the count of 287 Chinook salmon in the Takhanne River were above averages (Appendix E.9) and Goat Creek counts were below average.

A Chinook salmon mark-recapture study was conducted again in 2001 (Appendix E.11). The total inriver run estimate was 11,806 with an estimated escapement of 10,969.

Coho

The final Klukshu weir count was 748 and the escapement was746 and both were below average (Table 6; Appendices E.3 and E.7). The weir was removed prior to the completion of the coho run and typically does not include fish that migrate after mid-October. (Appendix E.10)

Sockeye Run Reconstruction

Estimates of the Klukshu contribution to the sockeye run to the Alsek drainage vary from 29% based on final mark-recapture results, 37%, as estimated from an ADF&G mark-recapture study in 1983, to 60%, based on Canadian fishery managers' professional judgment. The Klukshu weir count divided by the estimated proportion of Klukshu fish that constitute the total Alsek run, minus the recreational and aboriginal fishery catches yields an escapement estimate for the Alsek River. The estimated escapement added to the U.S. commercial and subsistence catches yields an estimate of the entire Alsek run. The mark-recapture estimate of 31,164 (does not include U.S. catches) fish for the entire Alsek drainage was within the escapement goal range. Using the 37% to 60% contribution range, the estimated sockeye escapement in the Alsek River was on the order of 17,150 (Canada) to 27,811 (U.S.) fish and the estimated Alsek sockeye run was on the order of 31,145 (Canada) to 41,806 (U.S.) fish. The sockeye escapement estimate falls below the low range of the sockeye escapement goal range of from 33,000 (U.S.) to 58,000 (Canada) for the Alsek River.

ENHANCEMENT ACTIVITIES

Egg Collection

In 2001, sockeye eggs were collected at Tahltan Lake on the Stikine River for the fourteenth year, and in the Tatsamenic Lake system on the Taku River, for the twelfth year.

Tahltan Lake

The egg collection was contracted to Arc Environmental Ltd. for the fifth consecutive year. Lower than average escapement in 2001 made capture of broodstock relatively difficult in comparison with previous years that had higher escapement levels. An estimated 3.3 million eggs were collected from 1,150 females and 1,150 males were taken for broodstock (Appendix F. 1). The estimated egg collection is based on an average historical fecundity of 2,875 eggs per female. An additional 86 fish were collected but deemed unspawnable. The broodstock was collected by beach seine at the major spawning site as has been done in previous years. The eggs were collected on thirteen distinct egg-take days. Two loads of eggs were delayed in shipment to the hatchery; one load was delayed by three days due to closed airways after the Sept. 11th tragedy, the other delay was due to weather.

Tatsamenie Lake

Tatsamenie Lake broodstock was again captured at an adult enumeration weir that was located at the outlet of Tatsamenie Lake. This was the eighth year that all of the Tatsamenie broodstock was captured at this location. Egg collection was again contracted to B. Mercer and Associates Ltd. A total of 1,552 females and 1,444 males were held prior to the first egg take on September 16. On Oct. 26, 273 females and 213 males were released after the egg take goal was reached. The released fish appeared to be in good condition and it is assumed the majority successfully spawned. An estimated 4.4 million eggs were collected (based on hatchery estimates of egg counts). Of the total fertilized eggs collected, 3.5 million were delivered to Snettisham hatchery in eight shipments, and 850,000 were placed in a passive flow incubator at Tatsamenie Lake.

Incubation, Thermal Marking, and Fry Plants (2000 Brood Year)

The egg incubation and thermal-marking program at Snettisham Hatchery went smoothly in year 2000/2001. Snettisham hatchery is operated by DIPAC (Douglas Island Pink and Chum, Inc.), a private aquaculture organization in Juneau. A co-operative agreement between ADF&G and DIPAC provides for Snettisham hatchery to serve the needs of the joint TBR enhancement projects.

Incubation of 2000 brood eggs took place at Snettisham Hatchery and the resultant fry were transported to the appropriate systems from May 25 to June 16, 2001. The IHN virus was detected in one pair of incubators during the incubation period for the Tahltan fry.

Tahltan Lake

A total of 1.9 million fry from the 2000 Tahltan sockeye egg take was planted back into Tahltan Lake in 2001 (Appendix F.1 and F. 2). Survival from green-egg to outplanted fry was 76.6%. Fry outplanting took place from May 25 through June 6 (Appendix F.1).

Tuya Lake

No fry were planted in Tuya Lake this year.

Tatsamenie Lake

A total of 2.2 million fry from the 2000 egg-take was planted into Tatsamenie Lake in 2001 (Table 7). Survival from green-egg to outplanted-fry was 64% (Appendix F.3). Outplanting took place from June 4 to June 16.

Outplant Evaluation Surveys

Acoustic, Trawl, Beach seine and Limnological Sampling

Standard limnological surveys were conducted at Tatsamenie, Tahltan, Trapper and Tuya Lakes. Hydroacoustic surveys with a newly purchased Bio-Sonics unit were conducted at Trapper Lake.

Thermal Mark Laboratories

ADF&G Thermal Mark Laboratory

During the 2001 season the ADFG thermal mark lab received 15,753 sockeye otoliths collected by ADFG and DFO staff as part of the U.S./Canada fry-planting evaluation program. These collections came from commercial and test fisheries in U.S. waters and in Canadian fisheries on the Taku and Stikine Rivers over a 14-week period. In addition, several escapement samples were examined. Combined, the laboratory processed 13,256 of the otoliths received (84%) and provided estimates on hatchery contributions for almost 100 distinct sampling collections. Of these totals, 3,007 otoliths were identified and classified as belonging to one of 29 marked groups. Estimates of the percentage of hatchery fish contributed to commercial fishery catches were provided to ADF&G and DFO fishery managers 24 to 48 hours after samples arrived at the lab.

Adult sockeye otoliths were processed inseason by the ADF&G otolith lab to estimate the weekly contribution of planted sockeye salmon to the District 106, 108, and 111 gillnet fisheries and to Canadian commercial fisheries in the Stikine and Taku Rivers. Final contribution estimates planted sockeye stocks to Alaskan catches were as follows: 14,506 planted Stikine fish to District 106 and 108 and 9,121 planted Taku fish to District 111 (includes inriver personal use fishery). Final contribution estimates of planted sockeye stocks to Canadian fisheries included 8,689 planted Stikine fish to Stikine River fisheries and 1,876 planted Taku fish to the Taku River fisheries.

Canadian Thermal Mark Laboratory

Sub-samples of juvenile and adult otolith samples collected during the 2001 season are being analyzed at the DFO thermal mark lab in Whitehorse. There was a substantive increase in the collection and analyses of beach seine and trawl samples collected at Tatsamenie Lake in the summer and fall of 2001 and additional samples were collected from the stomachs of predators. These samples were collected as part of the joint U.S./Canada assessment of the poor survival of fry planted into Tatsamenie Lake.

APPENDICES

Standards

Large Chinook salmon are MEF length ≥ 660
Unless otherwise stated Chinook salmon are large
Data not available to estimate catches of Alaska Hatchery pink and chum salmon
All catches of Tahltan, Trapper, and Tatsamenie, unless otherwise noted, include both wild and hatchery fish.

Appendix A. 1. Weekly salmon catch in the Alaskan District 106 commercial drift gillnet fisheries, 2001.

		Catch					Effort		
Week	Start Date	Chinook	Sockeye	Coho	Pink	Chum	Permits	Days	Permit Days
25	17-Jun	336	8,767	374	407	6,378	48	2	96
26	24-Jun	178	16,452	2,233	8,558	15,356	83	2	166
27	1-Jul	118	12,282	4,227	31,598	20,256	91	2	182
28	8-Jul	49	16,337	5,454	28,992	24,275	90	2	180
29	15-Jul	186	40,047	18,515	138,712	55,931	121	3	363
30	22-Jul	120	39,686	11,203	113,272	34,044	119	3	357
31	29-Jul	33	22,803	9,514	142,733	24,215	111	3	333
32	5-Aug	10	4,450	6,390	116,531	10,018	69	4	276
33	12-Aug	2	1,969	5,588	143,647	9,211	68	4	272
34	19-Aug	0	746	11,955	59,923	14,499	83	4	332
35	26-Aug	0	208	18,546	29,785	14,243	80	4	320
36	2-Sep	5	153	16,555	6,228	16,244	85	3	255
37	9-Sep	3	89	28,478	4,637	24,371	91	3	273
38	16-Sep	3	18	19,427	304	7,469	83	3	249
39	23-Sep	4	2	15,186	3	4,030	39	3	117
40	30-Sep	9	4	12,058	0	2,065	23	3	69
41	7-Oct	1	0	2,762	0	305	7	2	14
Total		1,057	164,013	188,465	825,330	282,910		50.0	3,854

Alaska Hatchery Contributions of Large Chinook and Coho salmon

		Large Chinnok		Coho	
		Hatchery	Wild	Hatchery	Wild
25	17-Jun	169	167	85	289
26	24-Jun	0	178	1,491	742
27	1-Jul	0	118	3,938	289
28	8-Jul	103	-54	3,566	1,888
29	15-Jul	167	19	9,779	8,736
30	22-Jul	0	120	1,902	9,301
31	29-Jul	0	33	1,402	8,112
32	5-Aug	0	10	718	5,672
33	12-Aug	0	2	571	5,017
34	19-Aug	0	0	1,311	10,644
35	26-Aug	0	0	1,573	16,973
36	2-Sep	0	5	3,224	13,331
37	9-Sep	0	3	9,314	19,164
38	16-Sep	0	3	9,326	10,101
39	23-Sep	7	-3	7,184	8,002
40	30-Sep	0	9	10,087	1,971
41	7-Oct	0	1	1,908	854
Total		446	611	67,378	121,087

Appendix A. 2. Weekly stock proportions of sockeye salmon harvested in the Alaskan District 106 commercial drift gillnet fisheries, 2001.

Data based on scale pattern analysis, and thermal marks

			Stikine				Planted	CPUE of Stikine Fish			
Week	Alaska	Canada	Tahltan	Tuya	Mainstem	Total	Tahltan	Tahltan	Tuya	Mainstem	Total
Proportions											
25	0.405	0.334	0.015	0.221	0.025	0.261	0.083	0.047	0.278	0.153	0.204
26	0.369	0.270	0.153	0.193	0.015	0.361	0.083	0.513	0.264	0.096	0.305
27	0.479	0.254	0.076	0.181	0.011	0.267	0.089	0.172	0.168	0.047	0.154
28	0.740	0.122	0.006	0.119	0.012	0.138	0.089	0.019	0.149	0.075	0.107
29	0.630	0.224	0.041	0.061	0.044	0.147	0.058	0.152	0.094	0.323	0.138
30	0.457	0.465	0.025	0.031	0.022	0.078	0.043	0.095	0.048	0.160	0.074
31	0.479	0.498	0.000	0.000	0.023	0.023	0.007	0.000	0.000	0.103	0.013
32	0.584	0.386	0.000	0.000	0.031	0.031	0.000	0.000	0.000	0.033	0.004
33	0.536	0.460	0.000	0.000	0.004	0.004	0.000	0.000	0.000	0.002	0.000
34	0.440	0.533	0.000	0.000	0.027	0.027	0.000	0.000	0.000	0.004	0.001
35	0.451	0.525	0.000	0.000	0.024	0.024	0.000	0.000	0.000	0.001	0.000
36	0.435	0.537	0.000	0.000	0.028	0.028	0.000	0.000	0.000	0.001	0.000
37	0.459	0.519	0.000	0.000	0.022	0.022	0.000	0.000	0.000	0.000	0.000
38	0.431	0.540	0.000	0.000	0.029	0.029	0.000	0.000	0.000	0.000	0.000
39	0.406	0.560	0.000	0.000	0.034	0.034	0.000	0.000	0.000	0.000	0.000
40	0.406	0.560	0.000	0.000	0.034	0.034	0.000	0.000	0.000	0.000	0.000
Total	0.525	0.332	0.039	0.079	0.025	0.143	0.010				
Catches											
25	3,553	2,924	134	1,935	221	2,290	115	1.4	20.2	2.3	23.9
26	6,065	4,449	2,525	3,173	240	5,938	395	15.2	19.1	1.4	35.8
27	5,884	3,121	930	2,217	130	3,277	661	5.1	12.2	0.7	18.0
28	12,094	1,990	104	1,946	203	2,253	332	0.6	10.8	1.1	12.5
29	25,221	8,957	1,640	2,462	1,767	5,869	89	4.5	6.8	4.9	16.2
30	18,143	18,443	1,006	1,232	862	3,100	0	2.8	3.5	2.4	8.7
31	10,926	11,358	0	0	519	519	0	0.0	0.0	1.6	1.6
32	2,597	1,716	0	0	137	137	0	0.0	0.0	0.5	0.5
33	1,056	905	0	0	8	8	0	0.0	0.0	0.0	0.0
34	328	398	0	0	20	20	0	0.0	0.0	0.1	0.1
35	94	109	0	0	5	5	0	0.0	0.0	0.0	0.0
36	67	82	0	0	4	4	0	0.0	0.0	0.0	0.0
37	41	46	0	0	2	2	0	0.0	0.0	0.0	0.0
38	8	10	0	0	1	1	0	0.0	0.0	0.0	0.0
39	1	1	0	0	0	0	0	0.0	0.0	0.0	0.0
40	2	2	0	0	0	0	0	0.0	0.0	0.0	0.0
Total	86,078	54,512	6,339	12,965	4,119	23,423	1,592	29.6	72.5	15.1	117.2

Appendix A. 3. Weekly salmon catch and effort in the Alaskan Subdistrict 106-41&42 (Sumner Strait) commercial drift gillnet fishery, 2001.

		Catch					Effort		
Week	Start Date	Chinook	Sockeye	Coho	Pink	Chum	Permits	Days	Permit Days
25	17-Jun	277	7,730	352	390	5,338	42	2	84
26	24-Jun	74	11,438	1,561	5,486	8,787	50	2	100
27	1-Jul	46	8,875	3,082	15,164	12,363	57	2	114
28	8-Jul	27	12,744	3,710	18,130	17,137	66	2	132
29	15-Jul	38	25,617	11,191	66,610	29,568	68	3	204
30	22-Jul	25	18,503	4,553	39,504	14,749	65	3	195
31	29-Jul	3	10,394	4,213	58,417	14,105	61	3	183
32	5-Aug	2	2,255	3,236	30,242	5,065	35	4	140
33	12-Aug	1	734	2,744	41,200	4,902	27	4	108
34	19-Aug	0	579	10,429	41,929	12,208	57	4	228
35	26-Aug	0	147	16,190	21,438	12,044	64	4	256
36	2-Sep	4	124	12,978	4,319	10,192	60	3	180
37	9-Sep	2	58	17,778	2,352	11,638	50	3	150
38	16-Sep	3	15	14,472	201	4,772	54	3	162
39	23-Sep	4	2	12,698	3	3,058	30	3	90
40	30-Sep	9	4	12,007	0	2,034	22	3	66
41	7-Oct	1	0	2,762	0	305	7	2	14
42	14-Oct								
Total		516	99,219	133,956	345,385	168,265		50.0	2,406

Appendix A. 4. Weekly stock proportions and catches of sockeye salmon harvested in the Alaskan Subdistrict 106-41&42 (Sumner Strait) commercial drift gillnet fishery, 2001.

Data based on scale pattern analysis, and thermal marks

			Stikine				Planted	CPUE of Stikine Fish			
Week	Alaska	Canada	Tahltan	Tuya	Mainstem	Total	Tahltan	Tahltan	Tuya	Mainstem	Total
Proportions											
25	0.459	0.312	0.008	0.220	0.000	0.228	0.014	0.028	0.215	0.002	0.155
26	0.360	0.241	0.121	0.256	0.021	0.398	0.031	0.543	0.311	0.149	0.335
27	0.403	0.286	0.063	0.236	0.012	0.311	0.063	0.191	0.195	0.059	0.178
28	0.705	0.123	0.008	0.148	0.016	0.172	0.026	0.031	0.151	0.095	0.122
29	0.523	0.292	0.023	0.093	0.069	0.185	0.003	0.113	0.124	0.536	0.171
30	0.511	0.453	0.025	0.004	0.007	0.036	0.000	0.094	0.004	0.039	0.025
31	0.384	0.592	0.000	0.000	0.024	0.024	0.000	0.000	0.000	0.086	0.010
32	0.486	0.495	0.000	0.000	0.019	0.019	0.000	0.000	0.000	0.019	0.002
33	0.499	0.490	0.000	0.000	0.011	0.011	0.000	0.000	0.000	0.005	0.001
34	0.406	0.560	0.000	0.000	0.034	0.034	0.000	0.000	0.000	0.005	0.001
35	0.406	0.560	0.000	0.000	0.034	0.034	0.000	0.000	0.000	0.001	0.000
36	0.406	0.560	0.000	0.000	0.034	0.034	0.000	0.000	0.000	0.001	0.000
37	0.406	0.560	0.000	0.000	0.034	0.034	0.000	0.000	0.000	0.001	0.000
38	0.406	0.560	0.000	0.000	0.034	0.034	0.000	0.000	0.000	0.000	0.000
39	0.406	0.560	0.000	0.000	0.034	0.034	0.000	0.000	0.000	0.000	0.000
40	0.406	0.560	0.000	0.000	0.034	0.034	0.000	0.000	0.000	0.000	0.000
Total	0.493	0.336	0.032	0.112	0.028	0.171	0.015	0.188	0.694	0.119	1.000
Catches											
25	3,550	2,415	59	1,703	3	1,765	108	0.7	20.3	0.0	21.0
26	4,123	2,757	1,387	2,931	240	4,558	357	13.9	29.3	2.4	45.6
27	3,573	2,541	557	2,096	108	2,761	555	4.9	18.4	0.9	24.2
28	8,984	1,572	104	1,881	203	2,188	332	0.8	14.3	1.5	16.6
29	13,397	7,489	588	2,380	1,763	4,731	89	2.9	11.7	8.6	23.2
30	9,450	8,388	469	72	124	665	0	2.4	0.4	0.6	3.4
31	3,991	6,150	0	0	253	253	0	0.0	0.0	1.4	1.4
32	1,095	1,117	0	0	43	43	0	0.0	0.0	0.3	0.3
33	366	360	0	0	8	8	0	0.0	0.0	0.1	0.1
34	235	324	0	0	20	20	0	0.0	0.0	0.1	0.1
35	60	82	0	0	5	5	0	0.0	0.0	0.0	0.0
36	50	69	0	0	4	4	0	0.0	0.0	0.0	0.0
37	24	32	0	0	2	2	0	0.0	0.0	0.0	0.0
38	6	8	0	0	1	1	0	0.0	0.0	0.0	0.0
39	1	1	0	0	0	0	0	0.0	0.0	0.0	0.0
40	2	2	0	0	0	0	0	0.0	0.0	0.0	0.0
Total	48,906	33,309	3,164	11,063	2,777	17,004	1,441	25.5	94.3	16.1	135.9

Appendix A. 5. Weekly salmon catch and effort in the Alaskan Subdistrict 106-30 (Clarence Strait) commercial drift gillnet fishery, 2001.

		Catch					Effort		
Week	Start Date	Chinook	Sockeye	Coho	Pink	Chum	Permits	Days	Permit Days
25	17-Jun	59	1,037	22	17	1,040	6	2	12
26	24-Jun	104	5,014	672	3,072	6,569	34	2	68
27	1-Jul	72	3,407	1,145	16,434	7,893	37	2	74
28	8-Jul	22	3,593	1,744	10,862	7,138	25	2	50
29	15-Jul	148	14,430	7,324	72,102	26,363	53	3	159
30	22-Jul	95	21,183	6,650	73,768	19,295	62	3	186
31	29-Jul	30	12,409	5,301	84,316	10,110	59	3	177
32	5-Aug	8	2,195	3,154	86,289	4,953	37	4	148
33	12-Aug	1	1,235	2,844	102,447	4,309	44	4	176
34	19-Aug	0	167	1,526	17,994	2,291	29	4	116
35	26-Aug	0	61	2,356	8,347	2,199	17	4	68
36	2-Sep	1	29	3,577	1,909	6,052	27	3	81
37	9-Sep	1	31	10,700	2,285	12,733	46	3	138
38	16-Sep	0	3	4,955	103	2,697	30	3	90
39	23-Sep	0	0	2,488	0	972	9	3	27
40	30-Sep	0	0	51	0	31	1	3	3
Total		541	64,794	54,509	479,945	114,645		50	1,573

Appendix A. 6. Weekly stock proportions and catches of sockeye salmon harvested in the Alaskan Subdistrict 106-30 (Clarence Strait) commercial drift gillnet fishery, 2001.

Data based on scale pattern analysis and thermal marks

			Stikine				Planted	CPUE of Stikine Fish			
Week	Alaska	Canada	Tahltan	Tuya	Mainstem	Total	Tahltan	Tahltan	Tuya	Mainstem	Total
Proportions											
25	0.003	0.491	0.072	0.224	0.210	0.506	0.007	0.167	0.000	0.739	0.462
26	0.387	0.337	0.227	0.048	0.000	0.275	0.007	0.446	0.000	0.000	0.214
27	0.678	0.170	0.109	0.036	0.006	0.151	0.031	0.134	0.000	0.012	0.074
28	0.866	0.116	0.000	0.018	0.000	0.018	0.000	0.000	0.000	0.000	0.014
29	0.819	0.102	0.073	0.006	0.000	0.079	0.000	0.176	0.000	0.001	0.076
30	0.410	0.475	0.025	0.055	0.035	0.115	0.000	0.077	0.000	0.161	0.138
31	0.559	0.420	0.000	0.000	0.021	0.021	0.000	0.000	0.000	0.061	0.016
32	0.684	0.273	0.000	0.000	0.043	0.043	0.000	0.000	0.000	0.026	0.007
33	0.558	0.442	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
34	0.558	0.442	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
35	0.558	0.442	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
36	0.558	0.442	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
37	0.558	0.442	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
38	0.558	0.442	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
39	0.558	0.442	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
40	0.558	0.442	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
41	0.558	0.442	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total	0.574	0.327	0.049	0.029	0.021	0.099	0.002	0.396	0.344	0.260	1.000
Catches											
25	3	509	75	232	218	525	8	6.3	19.3	18.2	43.8
26	1,942	1,692	1,138	242	0	1,380	37	16.7	3.6	0.0	20.3
27	2,311	580	373	121	22	516	106	5.0	1.6	0.3	7.0
28	3,110	418	0	65	0	65	0	0.0	1.3	0.0	1.3
29	11,824	1,468	1,052	82	4	1,138	0	6.6	0.5	0.0	7.2
30	8,693	10,055	537	1,160	738	2,435	0	2.9	6.2	4.0	13.1
31	6,935	5,208	0	0	266	266	0	0.0	0.0	1.5	1.5
32	1,502	599	0	0	94	94	0	0.0	0.0	0.6	0.6
33	690	545	0	0	0	0	0	0.0	0.0	0.0	0.0
34	93	74	0	0	0	0	0	0.0	0.0	0.0	0.0
35	34	27	0	0	0	0	0	0.0	0.0	0.0	0.0
36	16	13	0	0	0	0	0	0.0	0.0	0.0	0.0
37	17	14	0	0	0	0	0	0.0	0.0	0.0	0.0
38	2	1	0	0	0	0	0	0.0	0.0	0.0	0.0
39	0	0	0	0	0	0	0	0.0	0.0	0.0	0.0
40	0	0	0	0	0	0	0	0.0	0.0	0.0	0.0
41	0	0	0	0	0	0	0	0.0	0.0	0.0	0.0
Total	37,172	21,203	3,175	1,902	1,342	6,419	151	37.5	32.6	24.6	94.7

Appendix A. 7. Weekly salmon catch and effort in the Alaskan District 108 commercial drift gillnet fishery, 2001.

The permit days are adjusted for boats which did not fish the entire opening and are less than the sum of the permits times the days

		Catch					Effort		
Week	Start Date	Chinook	Sockeye	Coho	Pink	Chum	Permits	Days	Permit Days
31	29-Jul	1	324	84	1,868	736	9	3	27.0
32	5-Aug	6	223	340	6,242	1,373	11	4	44.0
33	12-Aug	0	12	189	754	63	5	4	20.0
34	19-Aug	0	15	547	521	113	6	4	24.0
35	26-Aug	0	20	1,272	1,446	455	19	4	76.0
36	2-Sep	0	13	2,052	85	1,248	20	3	60.0
37	9-Sep	0	1	1,871	96	650	12	3	36.0
38	16-Sep	0	2	1,707	0	431	16	3	48.0
39	23-Sep	0	0	1,845	0	293	11	3	33.0
40	30-Sep	0	0	824	0	35	3	3	9.0
Total		7	610	10,731	11,012	5,397	112	36	377

Alaska Hatchery Contributions of Large Chinook and Coho salmon

		Large Chinnok		Coho	
		Hatchery	Wild	Hatchery	Wild
31	29-Jul	0	1	0	84
32	5-Aug	0	6	0	340
33	12-Aug	0	0	9	180
34	19-Aug	0	0	0	547
35	26-Aug	0	0	0	1,272
36	2-Sep	0	0	166	1,886
37	9-Sep	0	0	625	1,246
38	16-Sep	0	0	254	1,453
39	23-Sep	0	0	819	1,026
40	30-Sep	0	0	693	131
Total		0	7	2,565	8,166

Appendix A. 8. Weekly stock proportions and stock-specific catch of sockeye salmon in the Alaskan District 108 commercial drift gillnet fishery, 2001.

Data based on scale pattern analysis and thermal marks

			Stikine				Planted	CPUE of Stikine Fish			
Week	Alaska	Canada	Tahltan	Tuya	Mainstem	Total	Tahltan	Tahltan	Tuya	Mainstem	Total
Proportions											
31	0.775	0.098	0.000	0.005	0.121	0.126	0.000	0.000	0.637	0.637	0.637
32	0.775	0.098	0.000	0.005	0.121	0.126	0.000	0.000	0.269	0.269	0.269
33	0.775	0.098	0.000	0.005	0.121	0.126	0.000	0.000	0.032	0.032	0.032
34	0.775	0.098	0.000	0.005	0.121	0.126	0.000	0.000	0.033	0.033	0.033
35	0.775	0.098	0.000	0.005	0.121	0.126	0.000	0.000	0.014	0.014	0.014
36	0.775	0.098	0.000	0.005	0.121	0.126	0.000	0.000	0.011	0.011	0.011
37	0.775	0.098	0.000	0.005	0.121	0.126	0.000	0.000	0.001	0.001	0.001
38	0.775	0.098	0.000	0.005	0.121	0.126	0.000	0.000	0.002	0.002	0.002
Total	0.775	0.098	0.000	0.005	0.121	0.126	0.000	0.000	0.039	0.961	1.000
Catch											
31	251	32	0	2	39	41	0	0.0	0.1	1.5	1.5
32	173	22	0	1	27	28	0	0.0	0.0	0.6	0.6
33	9	1	0	0	1	2	0	0.0	0.0	0.1	0.1
34	12	1	0	0	2	2	0	0.0	0.0	0.1	0.1
35	16	2	0	0	2	3	0	0.0	0.0	0.0	0.0
36	10	1	0	0	2	2	0	0.0	0.0	0.0	0.0
37	1	0	0	0	0	0	0	0.0	0.0	0.0	0.0
38	2	0	0	0	0	0	0	0.0	0.0	0.0	0.0
Total	473	60	0	3	74	77	0	0.0	0.1	2.3	2.4

Appendix A. 9. Weekly salmon catch and effort and sockeye salmon stock composition in the Alaskan District 108 test fishery, 2001.

No test fishery in 2001

Appendix A. 10. Weekly salmon catch and effort in the Canadian commercial fishery in the lower Stikine River, 2001.

		Catch						Effort		
	Start	Chinook								Permit
Week	Date	Large	non large	Sockeye	Coho	Pink	Chum	Permits	Days	Days
26	24-Jun	390	20	237	0	0	0	10.00	1.0	10.0
27	1-Jul	187	25	3,402	0	0	0	9.00	1.0	9.0
28	8-Jul	204	10	4,183	0	0	2	9.00	2.0	18.0
29	15-Jul	23	2	3,035	0	4	4	9.00	2.0	18.0
30	22-Jul	14	2	3,091	0	9	7	9.00	3.0	27.0
31	29-Jul	3	0	5,318	24	10	20	8.80	5.0	44.0
32	5-Aug	4	0	568	27	24	7	5.00	3.0	15.0
33	12-Aug	1	0	29	30	27	9	5.00	1.0	5.0
34	19-Aug	0	0	0	18	4	7	5.00	2.0	10.0
35	26-Aug	0	0	3	7	0	0	5.00	2.0	10.0
36	2-Sep	0	0	6	127	0	0	7.00	1.0	7.0
Total		826	59	19,872	233	78	56		23.0	173.0

Appendix A. 11. Weekly sockeye salmon stock proportions and catch by stock in the Canadian commercial fishery in the lower Stikine River, 2001.

Sex specific age compositions were calculated and the stock composition of the females sampled for egg diameters was expanded to the catch by age.
If no fishery, commercial catch from comparable week is used.

	Proportion				Planted	Catch			Tahltan	
Week	Small Egg	Tahltan	Tuya	Mainstem	Tahltan	Tahltan	Tuya	Mainstem	Wild	Planted
26	0.916	0.599	0.316	0.084	0.068	142	75	20	126	16
27	0.846	0.331	0.515	0.154	0.075	1,126	1,751	525	870	256
28	0.659	0.207	0.452	0.341	0.017	867	1,891	1,425	796	71
29	0.397	0.265	0.132	0.603	0.066	805	400	1,830	604	201
30	0.178	0.076	0.101	0.822	0.028	236	313	2,542	148	88
31	0.065	0.056	0.009	0.935	0.000	297	47	4,974	297	0
32	0.026	0.016	0.011	0.974	0.000	9	6	553	9	0
33	0.000	0.000	0.000	1.000	0.000	0	0	29	0	0
34	0.000	0.000	0.000	1.000	0.000	0	0	0	0	0
35	0.000	0.000	0.000	1.000	0.000	0	0	3	0	0
36	0.000	0.000	0.000	1.000	0.000	0	0	6	0	0
Total						3,482	4,483	11,907	2,850	632
Proportion						0.175	0.226	0.599	0.143	0.032

	Catch/Effort below Porcupine		Total		CPUE			Tahltan	
Week	Sockeye	Permit Day	CPUE	Small Egg	Tahltan	Tuya	Mainstem	Wild	Planted
26				23.700	14.200	7.500	2.000	12.600	1.600
27				378.000	125.111	194.556	58.333	96.667	28.444
28				232.389	48.167	105.056	79.167	44.222	3.944
29				168.611	44.722	22.222	101.667	33.556	11.167
30				114.481	8.741	11.593	94.148	5.481	3.259
31				120.864	6.750	1.068	113.045	6.750	0.000
32				37.867	0.600	0.400	36.867	0.600	0.000
33				5.800	0.000	0.000	5.800	0.000	0.000
34				0.000	0.000	0.000	0.000	0.000	0.000
35				0.300	0.000	0.000	0.300	0.000	0.000
36				0.857	0.000	0.000	0.857	0.000	0.000
Total				1082.869	248.291	342.394	492.184	199.876	48.415
Proportion					0.229	0.316	0.455	0.185	0.045

Appendix A. 12. Weekly salmon catch and effort in the Canadian commercial fishery in the upper Stikine River, 2001.

		Catch						Effort		
	Start	Chinook								Permit
Week	Date	Large	non large	Sockeye	Coho	Pink	Chum	Permits	Days	Days
29	15-Jul			108				1.0	2.0	2.0
30	22-Jul			379				2.0	2.0	4.0
Total		0	0	487	0	0	0	3.0	4.0	6.0

Appendix A. 13. Weekly salmon catch and effort in the Canadian Aboriginal fishery located at Telegraph Creek, on the Stikine River, 2001.

		Catch						Effort		
	Start	Chinook								Permit
Week	Date	Large	non large	Sockeye	Coho	Pink	Chum	Permits	Days	Days
20	13-May	11	0	0				2.00	5	10.0
21	20-May	64	1	0	0	0	0	3.29	7.0	23.0
22	27-May	24	0	0	0	0	0	3.00	2.0	6.0
23	3-Jun	2	0	0	0	0	0	1.00	1.0	1.0
24	10-Jun	3	0	0	0	0	0	2.00	1.0	2.0
25	17-Jun	54	8	3	0	0	0	2.43	7.0	17.0
26	24-Jun	101	8	6	0	0	0	2.86	7.0	20.0
27	1-Jul	113	10	110	0	0	0	2.71	7.0	19.0
28	8-Jul	156	11	2,288	0	0	0	11.43	7.0	80.0
29	15-Jul	38	1	714	0	0	0	6.00	7.0	42.0
30	22-Jul	76	5	1,179	0	0	0	5.71	7.0	40.0
31	29-Jul	21	0	693	0	0	0	3.43	7.0	24.0
32	5-Aug	2	0	180	0	0	0	1.43	7.0	10.0
33	12-Aug	0	0	68	0	0	0	1.00	4.0	4.0
Total		665	44	5,241	0	0	0		76	298.0

Appendix A. 14. Catch by stock and week for sockeye salmon harvested in the Canadian upper river commercial and Aboriginal fisheries in the Stikine River, 2001.

		Upper River Commercial					Aboriginal Fishery				
	Start				Tahltan					Tahltan	
Week	Date	Tahltan	Tuya Mainstem		Wild	Planted	Tahltan	Tuya Mainstem		Wild	Planted
25	17-Jun						3	0	0	0	0
26	24-Jun						4	2	0	4	0
27	1-Jul						67	35	8	67	0
28	8-Jul						859	1,310	119	740	119
29	15-Jul	20	76	12	12	8	134	511	69	87	47
30	22-Jul	193	153	33	136	57	607	473	99	432	175
31	29-Jul						121	395	177	121	0
32	5-Aug						0	155	25	0	0
33	12-Aug						0	58	10	0	0
Total		213	229	45	148	65	1,795	2,939	507	1,451	341

Appendix A. 15. Weekly salmon catch and effort in the Canadian test fishery in the Stikine River, 2001.

		Catch						
	Start	Chinook						# Drifts/
Week	Date	Large	non large	Sockeye	Coho	Pink	Chum	Set Hours
Drift gillnet								
26	24-Jun	72	2	141	0	0	0	77
27	1-Jul	33	1	269	0	0	0	84
28	8-Jul	20	0	238	0	0	0	70
29	15-Jul	3	0	127	0	1	1	77
30	22-Jul	0	0	113	0	1	1	56
31	29-Jul	0	0	38	0	11	4	28
32	5-Aug	0	0	26	7	29	11	42
33	12-Aug	0	0	9	31	20	14	56
34	19-Aug	0	0	3	35	8	11	70
35	26-Aug	0	0	2	57	3	3	70
36	2-Sep	0	0	0	43	1	2	56
37	9-Sep	0	0	0	18	0	0	30
38	16-Sep	0	0	1	24	0	0	30
39	23-Sep	0	0	0	15	0	0	30
40	30-Sep	0	0	0	11	0	0	30
41	7-Oct	0	0	0	12	0	0	54
42	14-Oct	0	0	0	4	0	0	23
Total		128	3	967	257	74	47	883
Set gillnet								
26	24-Jun	4	35	257	0	0	0	240
27	1-Jul	2	8	528	0	1	5	264
28	8-Jul	0	4	518	0	9	4	216
29	15-Jul	0	5	300	0	0	4	216
30	22-Jul	0	1	259	1	1	2	168
31	29-Jul	0	0	97	4	0	4	72
32	5-Aug	1	0	91	24	10	6	120
33	12-Aug	0	2	98	184	66	17	168
34	19-Aug	0	0	47	137	32	16	216
35	26-Aug	0	0	8	178	3	0	216
36	2-Sep	0	1	5	158	1	2	168
37	9-Sep	0	0	6	244	1	1	156
38	16-Sep	0	0	2	74	0	0	132
39	23-Sep	0	0	4	25	0	0	132
40	30-Sep	0	0	3	38	0	0	132
41	7-Oct	0	0	0	11	0	0	72
Total		7	56	2,223	1,078	124	61	2,688

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Week	Start Date	Catch						# Drifts/ Set Hours
		Chinook						
		Large	non large	Sockeye	Coho	Pink	Chum	
additional drifts								
20	13-May	27	0	0	0	0	0	119
21	20-May	140	0	0	0	0	0	131
22	27-May	133	4	0	0	0	0	152
23	3-Jun	238	6	0	0	0	0	170
24	10-Jun	373	11	6	0	0	0	171
25	17-Jun	288	4	4	0	0	0	156
26	24-Jun	448	19	81	0	0	0	140
38	16-Sep	0	0	0	112	0	0	45
39	23-Sep	0	0	0	119	0	1	90
40	30-Sep	0	0	0	97	0	0	90
41	7-Oct	0	0	0	91	0	0	90
42	14-Oct	0	0	0	7	0	0	45
43	21-Oct							
Total		1,647	44	91	426	0	1	1,399
Total Test Fishery Catch								
20	13-May	27	0	0	0	0	0	0
21	20-May	140	0	0	0	0	0	0
22	27-May	133	4	0	0	0	0	0
23	3-Jun	238	6	0	0	0	0	0
24	10-Jun	373	11	6	0	0	0	0
25	17-Jun	288	4	4	0	0	0	0
26	24-Jun	524	56	479	0	0	0	77
27	1-Jul	35	9	797	0	1	5	84
28	8-Jul	20	4	756	0	9	4	70
29	15-Jul	3	5	427	0	1	5	77
30	22-Jul	0	1	372	1	2	3	56
31	29-Jul	0	0	135	4	11	8	28
32	5-Aug	1	0	117	31	39	17	42
33	12-Aug	0	2	107	215	86	31	56
34	19-Aug	0	0	50	172	40	27	70
35	26-Aug	0	0	10	235	6	3	70
36	2-Sep	0	1	5	201	2	4	56
37	9-Sep	0	0	6	262	1	1	30
38	16-Sep	0	0	3	210	0	0	30
39	23-Sep	0	0	4	159	0	1	30
40	30-Sep	0	0	3	146	0	0	30
41	7-Oct	0	0	0	114	0	0	54
42	14-Oct	0	0	0	11	0	0	23
43	21-Oct	0	0	0	0	0	0	0
Total Test Catch		1,782	103	3,281	1,761	198	109	4,970

Appendix A. 16. Weekly catch, CPUE, and migratory timing of Tahltan, Tuya, and mainstem sockeye salmon stocks in the Stikine test fishery, 2001.

Sex specific age compositions were calculated and the stock composition of the females sampled for egg diameters was expanded to the catch by age.
If no test fishery, commercial catch from comparable week is used.

	Proportions			Catch			CPUE				Migratory Timing		
Week	Tahltan	Tuya	Mainstem	Tahltan	Tuya	Mainstem	Tahltan	Tuya	Mainstem	Total	Tahltan	Tuya	Mainstem
Drift gillnet													
26	0.411	0.386	0.203	58	54	29	0.753	0.707	0.371	1.831	0.053	0.049	0.026
27	0.226	0.453	0.321	61	122	86	0.723	1.451	1.029	3.202	0.050	0.101	0.072
28	0.235	0.302	0.463	56	72	110	0.801	1.025	1.574	3.400	0.056	0.071	0.110
29	0.159	0.199	0.642	20	25	81	0.263	0.328	1.058	1.649	0.018	0.023	0.074
30	0.108	0.116	0.777	12	13	88	0.217	0.233	1.568	2.018	0.015	0.016	0.109
31	0.096	0.030	0.874	4	1	33	0.131	0.040	1.186	1.357	0.009	0.003	0.083
32	0.017	0.077	0.906	0	2	24	0.011	0.048	0.561	0.619	0.001	0.003	0.039
33	0.019	0.037	0.944	0	0	8	0.003	0.006	0.152	0.161	0.000	0.000	0.011
34	0.000	0.000	1.000	0	0	3	0.000	0.000	0.043	0.043	0.000	0.000	0.003
35	0.000	0.032	0.968	0	0	2	0.000	0.001	0.028	0.029	0.000	0.000	0.002
36	0.000	0.032	0.968	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
37	0.000	0.032	0.968	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
38	0.000	0.032	0.968	0	0	1	0.000	0.001	0.032	0.033	0.000	0.000	0.002
39	0.000	0.032	0.968	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
40	0.000	0.032	0.968	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
41	0.000	0.032	0.968	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
42	0.000	0.032	0.968	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total				211	290	466	2.901	3.841	7.601	14.342			
Proportion				0.219	0.300	0.481					0.202	0.268	0.530
Set gillnet													
26	0.411	0.386	0.203	106	99	52	0.440	0.414	0.217	1.071	0.038	0.036	0.019
27	0.226	0.453	0.321	119	239	170	0.452	0.906	0.642	2.000	0.039	0.079	0.056
28	0.235	0.302	0.463	122	156	240	0.565	0.723	1.110	2.398	0.049	0.063	0.097
29	0.159	0.199	0.642	48	60	193	0.221	0.276	0.891	1.389	0.019	0.024	0.078
30	0.108	0.116	0.777	28	30	201	0.166	0.178	1.198	1.542	0.014	0.016	0.104
31	0.096	0.030	0.874	9	3	85	0.130	0.040	1.178	1.347	0.011	0.003	0.103
32	0.017	0.077	0.906	2	7	82	0.013	0.058	0.687	0.758	0.001	0.005	0.060
33	0.019	0.037	0.944	2	4	93	0.011	0.022	0.551	0.583	0.001	0.002	0.048
34	0.000	0.000	1.000	0	0	47	0.000	0.000	0.218	0.218	0.000	0.000	0.019
35	0.000	0.032	0.968	0	0	8	0.000	0.001	0.036	0.037	0.000	0.000	0.003
36	0.000	0.032	0.968	0	0	5	0.000	0.001	0.029	0.030	0.000	0.000	0.003
37	0.000	0.032	0.968	0	0	6	0.000	0.001	0.037	0.038	0.000	0.000	0.003
38	0.000	0.032	0.968	0	0	2	0.000	0.000	0.015	0.015	0.000	0.000	0.001
39	0.000	0.032	0.968	0	0	4	0.000	0.001	0.029	0.030	0.000	0.000	0.003
40	0.000	0.032	0.968	0	0	3	0.000	0.001	0.022	0.023	0.000	0.000	0.002
41	0.000	0.032	0.968	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total				435	599	1,189	1.997	2.623	6.859	11.479			
Proportion				0.196	0.269	0.535					0.174	0.229	0.598

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	Proportions			Catch			CPUE				Migratory Timing		
Week	Tahltan	Tuya Mainstem		Tahltan	Tuya Mainstem		Tahltan	Tuya Mainstem		Total	Tahltan	Tuya Mainstem	
Additional Drifts													
20	0.367	0.443	0.191	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21	0.367	0.443	0.191	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22	0.367	0.443	0.191	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23	0.367	0.443	0.191	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24	0.367	0.443	0.191	2	3	1	0.013	0.016	0.007	0.035	0.020	0.024	0.010
25	0.400	0.400	0.200	2	2	1	0.010	0.010	0.005	0.026	0.016	0.016	0.008
26	0.411	0.386	0.203	33	31	16	0.238	0.223	0.117	0.579	0.372	0.350	0.183
38	0.000	0.032	0.968	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
39	0.000	0.032	0.968	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
40	0.000	0.032	0.968	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
41	0.000	0.032	0.968	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
42	0.000	0.032	0.968	0	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total				37	36	18	0.261	0.249	0.129	0.639			
Proportion				0.408	0.391	0.202					0.408	0.390	0.202
Total Test Fishery Catches							Tahltan						
							Wild	Planted	Wild	Planted			
20	0.367	0.443	0.191	0	0	0	0.300	0.100	0	0			
21	0.367	0.443	0.191	0	0	0	0.300	0.100	0	0			
22	0.367	0.443	0.191	0	0	0	0.300	0.100	0	0			
23	0.367	0.443	0.191	0	0	0	0.300	0.100	0	0			
24	0.367	0.443	0.191	2	3	1	0.300	0.100	2	1			
25	0.400	0.400	0.200	2	2	1	0.300	0.100	1	0			
26	0.411	0.386	0.203	197	185	97	0.336	0.075	161	36			
27	0.226	0.453	0.321	180	361	256	0.220	0.006	175	5			
28	0.235	0.302	0.463	178	228	350	0.169	0.066	128	50			
29	0.159	0.199	0.642	68	85	274	0.094	0.066	40	28			
30	0.108	0.116	0.777	40	43	289	0.070	0.038	26	14			
31	0.096	0.030	0.874	13	4	118	0.007	0.089	1	12			
32	0.017	0.077	0.906	2	9	106	0.017	0.000	2	0			
33	0.019	0.037	0.944	2	4	101	0.019	0.000	2	0			
34	0.000	0.000	1.000	0	0	50	0.000	0.000	0	0			
35	0.000	0.032	0.968	0	0	10	0.000	0.000	0	0			
36	0.000	0.032	0.968	0	0	5	0.000	0.000	0	0			
37	0.000	0.032	0.968	0	0	6	0.000	0.000	0	0			
38	0.000	0.032	0.968	0	0	3	0.000	0.000	0	0			
39	0.000	0.032	0.968	0	0	4	0.000	0.000	0	0			
40	0.000	0.032	0.968	0	0	3	0.000	0.000	0	0			
41	0.000	0.032	0.968	0	0	0	0.000	0.000	0	0			
42	0.000	0.032	0.968	0	0	0	0.000	0.000	0	0			
Total				684	924	1,673			538	146			
Proportion				0.208	0.282	0.510							

Appendix A. 17. Daily counts of adult sockeye salmon passing through Tahltan Lake weir, 2001.

Date	Count	Cumulative Count	Cumulative Percent	Date	Count	Cumulative Count	Cumulative Percent
8-Jul	0	0	0.0	12-Aug	232	14,088	95.1
9-Jul	0	0	0.0	13-Aug	182	14,270	96.3
10-Jul	0	0	0.0	14-Aug	133	14,403	97.2
11-Jul	0	0	0.0	15-Aug	54	14,457	97.6
12-Jul	0	0	0.0	16-Aug	80	14,537	98.2
13-Jul	0	0	0.0	17-Aug	48	14,585	98.5
14-Jul	0	0	0.0	18-Aug	94	14,679	99.1
15-Jul	0	0	0.0	19-Aug	16	14,695	99.2
16-Jul	0	0	0.0	20-Aug	28	14,723	99.4
17-Jul	0	0	0.0	21-Aug	12	14,735	99.5
18-Jul	0	0	0.0	22-Aug	10	14,745	99.6
19-Jul	336	336	2.3	23-Aug	10	14,755	99.6
20-Jul	708	1,044	7.0	24-Aug	7	14,762	99.7
21-Jul	1,363	2,407	16.3	25-Aug	6	14,768	99.7
22-Jul	1,311	3,718	25.1	26-Aug	3	14,771	99.7
23-Jul	1,164	4,882	33.0	27-Aug	5	14,776	99.8
24-Jul	551	5,433	36.7	28-Aug	1	14,777	99.8
25-Jul	224	5,657	38.2	29-Aug	0	14,777	99.8
26-Jul	140	5,797	39.1	30-Aug	0	14,777	99.8
27-Jul	31	5,828	39.3	31-Aug	0	14,777	99.8
28-Jul	80	5,908	39.9	1-Sep	0	14,777	99.8
29-Jul	370	6,278	42.4	2-Sep	0	14,777	99.8
30-Jul	905	7,183	48.5	3-Sep	0	14,777	99.8
31-Jul	1,116	8,299	56.0	4-Sep	0	14,777	99.8
1-Aug	729	9,028	61.0	5-Sep	0	14,777	99.8
2-Aug	812	9,840	66.4	6-Sep	0	14,777	99.8
3-Aug	738	10,578	71.4	7-Sep	0	14,777	99.8
4-Aug	605	11,183	75.5	8-Sep	0	14,777	99.8
5-Aug	659	11,842	80.0	9-Sep	0	14,777	99.8
6-Aug	590	12,432	83.9	10-Sep	0	14,777	99.8
7-Aug	547	12,979	87.6	11-Sep	0	14,777	99.8
8-Aug	186	13,165	88.9	12-Sep	0	14,777	99.8
9-Aug	331	13,496	91.1	13-Sep	0	14,777	99.8
10-Aug	238	13,734	92.7	14-Sep	34	14,811	100.0
11-Aug	122	13,856	93.6	15-Sep	0	14,811	100.0

		Hatchery	Wild	Total
Total Counted				14,811
Fish removed for broodstock	female			-1,150
	male			-1,150
	rejects			-86
Total fish removed for broodstock		-945	-1,441	-2,386
Fish removed for otolith samples		-20	-30	-50
Total Spawners		4,900	7,475	12,375

Appendix A. 18. Daily counts of sockeye salmon smolt migrating through Tahltan Lake smolt weir, 2001.

Date	Count	Cumulative Count	Cumulative Percent
6-May	0	0	0.0
7-May	1	1	0.0
8-May	0	1	0.0
9-May	0	1	0.0
10-May	0	1	0.0
11-May	0	1	0.0
12-May	2	3	0.0
13-May	1	4	0.0
14-May	1	5	0.0
15-May	1	6	0.0
16-May	4	10	0.0
17-May	4	14	0.0
18-May	467	481	0.0
19-May	75,607	76,088	5.1
20-May	4,268	80,356	5.4
21-May	258,062	338,418	22.6
22-May	43,382	381,800	25.5
23-May	278,044	659,844	44.1
24-May	99,393	759,237	50.8
25-May	36,375	795,612	53.2
26-May	18,859	814,471	54.5
27-May	1,315	815,786	54.5
28-May	550	816,336	54.6
29-May	48,236	864,572	57.8
30-May	8,487	873,059	58.4
31-May	1,094	874,153	58.4
1-Jun	5,039	879,192	58.8
2-Jun	9,474	888,666	59.4
3-Jun	2,631	891,297	59.6
4-Jun	255,548	1,146,845	76.7
5-Jun	3,823	1,150,668	76.9
6-Jun	3,720	1,154,388	77.2
7-Jun	1,307	1,155,695	77.3
8-Jun	939	1,156,634	77.3
9-Jun	596	1,157,230	77.4
10-Jun	444	1,157,674	77.4
11-Jun	6,843	1,164,517	77.9
12-Jun	14,075	1,178,592	78.8
13-Jun	35,508	1,214,100	81.2
14-Jun	4,164	1,218,264	81.5
15-Jun	627	1,218,891	81.5
16-Jun	6,475	1,225,366	81.9
17-Jun	50,917	1,276,283	85.3
18-Jun	188,314	1,464,597	97.9
19-Jun	18,620	1,483,217	99.2
20-Jun	2,114	1,485,331	99.3
21-Jun	5,820	1,491,151	99.7
22-Jun	2,277	1,493,428	99.9
23-Jun	273	1,493,701	99.9
24-Jun	233	1,493,934	99.9
25-Jun	724	1,494,658	99.9
26-Jun	277	1,494,935	100.0
27-Jun	666	1,495,601	100.0
28-Jun	41	1,495,642	100.0
Wild		841,268	
Hatchery		654,374	
Total		1,495,642	

Appendix A. 19. Daily counts of large Chinook salmon passing through Little Tahltan weir, 2001.

	Large Chinook			Chinook non large		
		Cumulative			Cumulative	
Date	Count	Count	Percent	Count	Count	Percent
20-Jun	0	0	0.0	0	0	0.0
21-Jun	0	0	0.0	0	0	0.0
22-Jun	0	0	0.0	0	0	0.0
23-Jun	10	10	0.1	1	1	0.4
24-Jun	1	11	0.1	0	1	0.4
25-Jun	1	12	0.1	0	1	0.4
26-Jun	3	15	0.2	0	1	0.4
27-Jun	9	24	0.2	0	1	0.4
28-Jun	19	43	0.4	2	3	1.1
29-Jun	20	63	0.6	1	4	1.5
30-Jun	8	71	0.7	1	5	1.9
1-Jul	17	88	0.9	0	5	1.9
2-Jul	42	130	1.3	0	5	1.9
3-Jul	117	247	2.5	0	5	1.9
4-Jul	116	363	3.7	0	5	1.9
5-Jul	53	416	4.3	0	5	1.9
6-Jul	71	487	5.0	1	6	2.2
7-Jul	140	627	6.4	3	9	3.3
8-Jul	56	683	7.0	0	9	3.3
9-Jul	216	899	9.2	2	11	4.1
10-Jul	161	1,060	10.9	1	12	4.5
11-Jul	161	1,221	12.5	1	13	4.8
12-Jul	265	1,486	15.3	4	17	6.3
13-Jul	591	2,077	21.3	9	26	9.7
14-Jul	691	2,768	28.4	2	28	10.4
15-Jul	494	3,262	33.5	6	34	12.6
16-Jul	325	3,587	36.8	8	42	15.6
17-Jul	1,231	4,818	49.5	37	79	29.4
18-Jul	811	5,629	57.8	25	104	38.7
19-Jul	224	5,853	60.1	5	109	40.5
20-Jul	282	6,135	63.0	0	109	40.5
21-Jul	239	6,374	65.5	4	113	42.0
22-Jul	328	6,702	68.8	6	119	44.2
23-Jul	208	6,910	71.0	5	124	46.1
24-Jul	214	7,124	73.2	0	124	46.1
25-Jul	30	7,154	73.5	0	124	46.1
26-Jul	36	7,190	73.8	3	127	47.2
27-Jul	80	7,270	74.7	11	138	51.3
28-Jul	344	7,614	78.2	19	157	58.4
29-Jul	160	7,774	79.8	5	162	60.2
30-Jul	300	8,074	82.9	9	171	63.6
31-Jul	130	8,204	84.2	10	181	67.3
1-Aug	504	8,708	89.4	20	201	74.7
2-Aug	364	9,072	93.2	10	211	78.4
3-Aug	315	9,387	96.4	38	249	92.6
4-Aug	140	9,527	97.8	7	256	95.2
5-Aug	34	9,561	98.2	0	256	95.2
6-Aug	88	9,649	99.1	9	265	98.5
7-Aug	0	9,649	99.1	0	265	98.5
8-Aug	13	9,662	99.2	0	265	98.5
9-Aug	16	9,678	99.4	2	267	99.3
10-Aug	18	9,696	99.6	1	268	99.6
11-Aug	9	9,705	99.7	1	269	100.0
12-Aug	24	9,729	99.9	0	269	100.0
13-Aug	9	9,738	100.0	0	269	100.0
14-Aug	0	9,738	100.0	0	269	100.0
15-Aug		9,738	100.0		269	100.0
16-Aug		9,738	100.0		269	100.0
17-Aug		9,738	100.0		269	100.0
18-Aug		9,738	100.0		269	100.0
19-Aug		9,738	100.0		269	100.0
20-Aug		9,738	100.0		269	100.0
Total Counted		9,738			269	
Broodstock		-8	females			
Escapement		9,730			269	

Appendix B. 1. Salmon catch and effort in the Alaskan District 106 commercial drift gillnet fisheries, 1960-2001.

Effort may be less than the sum of effort from 106-41/42 and 106-30 since some boats fished in more than one subdistrict.

	Catch					Effort	
Year	Chinook	Sockeye	Coho	Pink	Chum	Permit Days	Days Open
1960	46	10,354	336	1,246	502	369	17
1961	416	20,614	14,934	124,236	64,479	1,737	57
1962	1,308	47,033	42,276	256,620	59,119	4,693	52
1963	1,560	80,767	52,103	514,596	90,103	5,589	51
1964	2,082	76,541	64,654	443,086	44,218	5,383	49
1965	1,802	87,749	75,728	625,848	27,658	4,507	51
1966	1,665	89,847	62,823	400,932	40,756	4,978	74
1967	1,318	86,385	17,670	91,609	26,370	2,511	27
1968	1,316	64,671	67,151	169,107	61,366	4,965	52
1969	877	70,318	10,280	197,073	10,903	2,112	31
1970	785	42,778	35,470	94,892	32,231	1,863	41
1971	1,336	53,202	48,085	527,975	37,680	2,774	47
1972	2,573	101,338	93,427	89,467	72,382	3,321	41
1973	1,931	71,995	38,447	303,621	87,729	3,300	26
1974	1,926	57,346	45,651	104,403	50,309	2,179	28
1975	2,587	32,051	30,962	203,015	23,968	1,649	18
1976	384	15,481	19,126	139,439	6,868	827	22
1977	671	67,023	8,401	419,107	13,300	1,381	28
1978	274	41,574	55,578	224,715	16,545	1,510	27
1979	2,720	66,373	28,083	648,212	35,507	2,703	31
1980	580	107,422	16,666	45,662	26,291	1,324	25
1981	1,565	182,001	22,614	437,573	34,296	2,926	26
1982	1,648	193,798	31,481	25,533	18,646	1,700	23
1983	567	48,842	62,442	208,290	20,144	1,453	31
1984	892	91,653	41,359	343,255	70,258	1,890	31
1985	1,687	264,987	91,188	584,953	69,673	2,673	31
1986	1,704	145,709	194,912	308,484	82,289	3,510	31
1987	836	136,427	34,534	243,482	42,025	1,767	20
1988	1,104	92,529	13,103	69,559	69,620	1,495	19
1989	1,544	192,734	92,385	1,101,194	67,351	3,222	34
1990	2,108	185,805	164,235	319,186	73,232	3,502	34
1991	2,055	144,104	198,160	133,566	124,630	3,620	39
1992	1,355	203,155	298,935	94,248	140,468	4,230	40
1993	992	205,955	231,038	537,960	134,601	4,353	38
1994	754	211,048	267,862	179,994	176,026	4,468	43
1995	951	207,298	170,561	448,163	300,078	3,657	34
1996	644	311,100	223,640	188,035	283,290	5,290	46
1997	1,075	168,518	77,550	789,051	186,456	3,668	39
1998	518	113,435	273,197	502,655	332,022	4,398	43
1999	518	104,878	203,262	490,716	448,367	4,943	50
2000	1,220	90,076	96,207	156,619	199,836	2,409	33
Averages							
60-00	1,266	111,827	88,208	311,887	90,283	3,045	36
91-00	1,008	175,957	204,041	352,101	232,577	4,104	41
2001	1,057	164,013	188,465	825,330	282,910	3,854	50

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Alaska Hatchery Contributions of Large Chinook and Coho salmon

	Large Chinnok		Coho	
	Hatchery	Wild	Hatchery	Wild
1989	512	1,032	5,029	87,356
1990	1,009	1,099	50,354	113,881
1991	608	1,447	64,067	134,093
1992	658	697	112,824	186,111
1993	305	687	77,914	153,124
1994	402	352	36,805	231,057
1995	353	598	27,333	143,228
1996	324	320	55,218	168,422
1997	369	706	19,479	58,071
1998	290	228	101,129	172,068
1999	189	329	82,828	120,434
2000	790	430	48,169	48,038
Averages				
91-00	429	579	62,577	141,465
2001	446	1,609	67,378	66,188

Appendix B. 2. Stock proportions and catches of sockeye salmon in the Alaskan District 106 commercial drift gillnet fisheries, 1982-2001.

Catches do not include Blind Slough terminal area harvest. Data based on scale pattern analysis.

			Stikine				Tahltan	
Year	Alaska	Canada	Tahltan	Tuya Mainstem		Total	Wild	Planted
Proportions								
1982	0.486	0.319				0.194		
1983	0.668	0.217	0.103		0.013	0.116		
1984	0.658	0.269	0.029		0.044	0.074		
1985	0.479	0.419	0.091		0.011	0.102		
1986	0.689	0.293	0.014		0.004	0.018		
1987	0.827	0.155	0.010		0.007	0.017		
1988	0.874	0.106	0.020		0.001	0.020		
1989	0.657	0.311	0.006		0.026	0.032		
1990	0.608	0.371	0.005		0.016	0.021		
1991	0.545	0.331	0.100		0.024	0.124		
1992	0.595	0.232	0.070		0.102	0.172		
1993	0.400	0.338	0.098		0.164	0.262		
1994	0.579	0.254	0.142		0.025	0.167	0.108	0.033
1995	0.316	0.560	0.081	0.001	0.043	0.124	0.044	0.036
1996	0.531	0.268	0.166	0.028	0.007	0.201	0.147	0.019
1997	0.576	0.271	0.058	0.079	0.016	0.153	0.037	0.021
1998	0.598	0.307	0.015	0.080	0.000	0.095	0.013	0.002
1999	0.671	0.092	0.057	0.061	0.118	0.237	0.054	0.003
2000	0.643	0.233	0.020	0.085	0.019	0.124	0.017	0.003
Averages								
82-00	0.600	0.281	0.060	0.055	0.036	0.119	0.060	0.017
91-00	0.545	0.289	0.081	0.055	0.052	0.166	0.060	0.017
2001	0.525	0.332	0.039	0.079	0.025	0.143	0.029	0.010
Catches								
1982	94,275	61,853				37,670		
1983	32,603	10,589	5,020		631	5,650		
1984	60,278	24,624	2,673		4,078	6,751		
1985	126,914	111,015	24,045		3,013	27,058		
1986	100,337	42,685	2,081		606	2,687		
1987	112,893	21,190	1,376		968	2,344		
1988	80,868	9,784	1,813		64	1,877		
1989	126,603	59,959	1,111		5,061	6,172		
1990	112,983	68,921	915		2,986	3,901		
1991	78,533	47,707	14,364		3,501	17,864		
1992	120,977	47,207	14,187		20,784	34,971		
1993	82,300	69,617	20,204		33,833	54,037		
1994	122,118	53,683	29,876		5,371	35,247	22,857	7,019
1995	65,544	116,075	16,715	125	8,839	25,679	9,182	7,533
1996	165,221	83,271	51,598	8,821	2,189	62,608	45,826	5,772
1997	97,101	45,665	9,764	13,232	2,756	25,752	6,281	3,483
1998	67,890	34,811	1,678	9,020	36	10,734	1,477	201
1999	70,363	9,696	5,988	6,427	12,404	24,819	5,700	288
2000	57,935	20,996	1,827	7,612	1,706	11,145	1,573	254
Averages								
82-00	93,460	49,439	11,402	7,540	6,046	20,893	13,271	3,507
91-00	92,798	52,873	16,620	7,540	9,142	30,286	13,271	3,507
2001	86,078	54,512	6,339	12,965	4,119	23,423	4,747	1,592

Appendix B. 3. Salmon catch and effort in the Alaskan Subdistrict 106-41/42 (Sumner Strait) commercial drift gillnet fishery, 1960-2001.

	Catch					Effort	
Year	Chinook	Sockeye	Coho	Pink	Chum	Permit Days	Days Open
1960	24	9,005	277	1,103	362	251	17
1961	75	9,488	1,851	26,435	9,657	359	48
1962	131	19,692	6,548	45,987	9,544	811	44
1963	310	45,305	15,727	135,503	50,380	2,311	47
1964	316	52,943	27,338	183,402	22,913	2,344	49
1965	679	58,736	30,570	162,271	15,763	1,658	51
1966	690	65,721	30,792	96,287	24,235	2,080	74
1967	668	60,148	10,573	52,284	19,626	1,463	27
1968	1,010	50,212	46,111	82,012	39,001	2,997	52
1969	607	46,258	6,094	92,075	6,393	1,147	31
1970	420	26,812	15,153	29,102	18,092	905	41
1971	671	33,991	24,727	283,739	19,329	1,619	50
1972	1,747	74,745	60,827	40,644	46,511	2,152	41
1973	1,540	55,254	24,921	160,297	62,486	2,253	26
1974	1,342	46,760	28,889	57,296	38,045	1,579	28
1975	467	19,319	4,650	29,340	7,762	515	17
1976	237	9,319	10,367	20,251	2,301	366	19
1977	202	47,408	1,819	51,038	4,240	447	17
1978	274	1,422	26,762	9,546	3,142	389	27
1979	458	34,807	12,087	176,395	16,816	952	25
1980	205	48,434	10,894	17,068	15,176	596	16
1981	598	132,293	13,161	220,194	25,682	1,732	25
1982	648	121,563	21,193	10,392	11,891	1,083	22
1983	268	28,153	41,208	74,347	13,001	875	32
1984	136	27,372	19,124	99,807	28,461	587	32
1985	538	172,088	50,577	319,379	45,566	1,726	38
1986	421	85,247	104,328	105,347	48,471	1,896	32
1987	441	79,165	17,776	117,059	25,877	978	20
1988	452	57,337	6,349	10,894	42,210	815	18
1989	581	107,886	55,671	418,044	40,156	1,716	34
1990	759	104,922	94,526	84,543	42,474	1,827	34
1991	844	89,355	136,990	64,334	85,435	2,118	39
1992	743	146,608	190,885	38,483	100,666	2,630	40
1993	458	129,859	134,902	296,986	96,995	2,728	38
1994	456	157,526	191,695	66,225	125,826	2,988	43
1995	663	133,713	109,613	154,004	189,369	2,349	34
1996	487	223,784	159,319	70,620	162,872	3,623	46
1997	829	118,675	52,917	414,619	100,612	2,402	39
1998	334	79,052	175,124	196,403	200,892	2,999	43
1999	397	73,378	130,083	277,194	284,807	3,294	50
2000	558	57,863	54,232	80,014	120,111	1,522	33
Averages							
60-00	553	71,747	52,601	118,804	54,223	1,636	35
91-00	577	120,981	133,576	165,888	146,759	2,665	41
2001	516	99,219	133,956	345,385	168,265	2,406	50

Appendix B. 4. Stock proportions and catches of sockeye salmon in the Alaskan Subdistrict 106-41/42 (Sumner Strait) commercial drift gillnet fishery, 1985-2001.

Data based on scale pattern analysis.

			Stikine				Tahltan	
Year	Alaska	Canada	Tahltan	Tuya Mainstem		Total	Wild	Planted
Proportions								
1985	0.480	0.401	0.109		0.010	0.119		
1986	0.662	0.308	0.024		0.006	0.030		
1987	0.816	0.166	0.015		0.003	0.018		
1988	0.868	0.112	0.019		0.001	0.020		
1989	0.653	0.303	0.009		0.036	0.044		
1990	0.579	0.395	0.008		0.018	0.026		
1991	0.460	0.377	0.129		0.034	0.163		
1992	0.582	0.241	0.088		0.089	0.177		
1993	0.369	0.327	0.134		0.169	0.304		
1994	0.531	0.271	0.166		0.032	0.198	0.127	0.040
1995	0.287	0.565	0.099	0.001	0.048	0.149	0.049	0.051
1996	0.479	0.245	0.228	0.039	0.009	0.276	0.203	0.025
1997	0.538	0.269	0.079	0.101	0.014	0.193	0.056	0.023
1998	0.550	0.337	0.017	0.096	0.000	0.113	0.014	0.003
1999	0.618	0.101	0.074	0.079	0.128	0.281	0.070	0.004
2000	0.611	0.223	0.028	0.116	0.023	0.167	0.024	0.004
Averages								
85-00	0.568	0.290	0.077	0.072	0.039	0.142	0.077	0.021
91-00	0.503	0.295	0.104	0.072	0.055	0.202	0.077	0.021
2001	0.493	0.336	0.032	0.112	0.028	0.171	0.017	0.015
Catches								
1985	82,563	68,962	18,801		1,762	20,563		
1986	56,462	26,214	2,070		501	2,571		
1987	64,582	13,170	1,155		258	1,413		
1988	49,776	6,426	1,071		64	1,135		
1989	70,436	32,663	957		3,830	4,787		
1990	60,795	41,415	801		1,911	2,712		
1991	41,123	33,644	11,541		3,048	14,588		
1992	85,364	35,277	12,961		13,005	25,967		
1993	47,970	42,450	17,446		21,992	39,438		
1994	83,692	42,620	26,164		5,050	31,214	19,934	6,230
1995	38,343	75,505	13,292	125	6,448	19,865	6,514	6,778
1996	107,193	54,823	50,924	8,731	2,113	61,768	45,340	5,584
1997	63,827	31,892	9,327	11,937	1,692	22,956	6,594	2,733
1998	43,479	26,661	1,326	7,555	31	8,912	1,125	201
1999	45,335	7,420	5,425	5,786	9,412	20,623	5,159	266
2000	35,327	12,875	1,617	6,727	1,317	9,661	1,363	254
Averages								
85-00	61,017	34,501	10,930	6,810	4,527	18,011	12,290	3,149
91-00	59,165	36,317	15,002	6,810	6,411	25,499	12,290	3,149
2001	48,906	33,309	3,164	11,063	2,777	17,004	1,723	1,441

Appendix B. 5. Salmon catch and effort in the Alaskan Subdistrict 106-30 (Clarence Strait) commercial drift gillnet fishery, 1960-2001.

	Catch					Effort	
Year	Chinook	Sockeye	Coho	Pink	Chum	Permit Days	Days Open
1960	22	1,349	59	143	140	118	13
1961	341	11,126	13,083	97,801	54,822	1,378	57
1962	1,177	27,341	35,728	210,633	49,575	3,882	52
1963	1,250	35,462	36,376	379,093	39,723	3,278	51
1964	1,766	23,598	37,316	259,684	21,305	3,039	49
1965	1,123	29,013	45,158	463,577	11,895	2,849	51
1966	975	24,126	32,031	304,645	16,521	2,898	74
1967	650	26,237	7,097	39,325	6,744	1,048	27
1968	306	14,459	21,040	87,095	22,365	1,968	52
1969	270	24,060	4,186	104,998	4,510	1,026	31
1970	365	15,966	20,317	65,790	14,139	1,025	41
1971	665	19,211	23,358	244,236	18,351	1,517	50
1972	826	26,593	32,600	48,823	25,871	1,276	41
1973	391	16,741	13,526	143,324	25,243	1,303	26
1974	584	10,586	16,762	47,107	12,264	712	28
1975	2,120	12,732	26,312	173,675	16,206	1,159	9
1976	147	6,162	8,759	119,188	4,567	527	21
1977	469	19,615	6,582	368,069	9,060	940	21
1978		40,152	28,816	215,169	13,403	1,148	16
1979	2,262	31,566	15,996	471,817	18,691	1,848	25
1980	375	58,988	5,772	28,594	11,115	749	25
1981	967	49,708	9,453	217,379	8,614	1,321	26
1982	1,000	72,235	10,288	15,141	6,755	647	21
1983	299	20,689	21,234	133,943	7,143	589	37
1984	756	64,281	22,235	243,448	41,797	1,236	24
1985	1,149	92,899	40,611	265,574	24,107	1,372	36
1986	1,283	60,462	90,584	203,137	33,818	1,664	31
1987	395	57,262	16,758	126,423	16,148	799	20
1988	652	35,192	6,754	58,665	27,410	682	19
1989	963	84,848	36,714	683,150	27,195	1,583	34
1990	1,349	80,883	69,709	234,643	30,758	1,676	34
1991	1,211	54,749	61,170	69,232	39,195	1,505	39
1992	612	56,547	108,050	55,765	39,802	1,603	40
1993	534	76,096	96,136	240,974	37,606	1,646	38
1994	298	53,522	76,167	113,769	50,200	1,606	43
1995	288	73,585	60,948	294,159	110,709	1,422	34
1996	157	87,316	64,321	117,415	120,418	1,580	39
1997	246	49,843	24,633	374,432	85,844	1,329	38
1998	184	34,383	98,073	306,252	131,130	1,522	43
1999	121	31,500	73,179	213,522	163,560	1,766	49
2000	662	32,213	41,975	76,605	79,725	934	33
Averages							
60-00	730	40,080	35,606	193,083	36,060	1,468	35
91-00	431	54,975	70,465	186,213	85,819	1,491	40
2001	541	64,794	54,509	479,945	114,645	1,573	50

Appendix B. 6. Stock proportions and catches of sockeye salmon in the Alaskan Subdistrict 106-30 (Clarence Strait) commercial drift gillnet fishery, 1985-2001.

Data based on scale pattern analysis.

			Stikine				Tahltan	
Year	Alaska	Canada	Tahltan	Tuya Mainstem		Total	Wild	Planted
Proportions								
1985	0.477	0.453	0.056		0.013	0.070		
1986	0.726	0.272	0.000		0.002	0.002		
1987	0.844	0.140	0.004		0.012	0.016		
1988	0.883	0.095	0.021		0.000	0.021		
1989	0.662	0.322	0.002		0.015	0.016		
1990	0.645	0.340	0.001		0.013	0.015		
1991	0.683	0.257	0.052		0.008	0.060		
1992	0.630	0.211	0.022		0.138	0.159		
1993	0.451	0.357	0.036		0.156	0.192		
1994	0.718	0.207	0.069		0.006	0.075	0.055	0.015
1995	0.370	0.551	0.047	0.000	0.032	0.079	0.036	0.010
1996	0.665	0.326	0.008	0.001	0.001	0.010	0.006	0.002
1997	0.668	0.276	0.009	0.026	0.021	0.056	-0.006	0.015
1998	0.710	0.237	0.010	0.043	0.000	0.053	0.010	0.000
1999	0.795	0.072	0.018	0.020	0.095	0.133	0.017	0.001
2000	0.702	0.252	0.007	0.027	0.012	0.046	0.007	0.000
Average								
85-00	0.664	0.273	0.023	0.020	0.033	0.063	0.018	0.006
91-00	0.639	0.275	0.028	0.020	0.047	0.086	0.018	0.006
2001	0.574	0.327	0.049	0.029	0.021	0.099	0.047	0.002
Catch								
1985	44,351	42,053	5,244		1,251	6,495		
1986	43,875	16,471	11		105	116		
1987	48,311	8,020	221		710	931		
1988	31,092	3,358	742		0	742		
1989	56,167	27,296	154		1,231	1,385		
1990	52,188	27,506	114		1,075	1,189		
1991	37,410	14,063	2,823		453	3,277		
1992	35,613	11,930	1,226		7,778	9,004		
1993	34,330	27,167	2,758		11,841	14,599		
1994	38,426	11,063	3,712		321	4,033	2,923	789
1995	27,201	40,570	3,423	0	2,391	5,814	2,668	755
1996	58,028	28,448	674	90	76	840	486	188
1997	33,274	13,773	437	1,295	1,064	2,796	-313	750
1998	24,411	8,150	352	1,465	5	1,822	352	0
1999	25,028	2,276	563	641	2,992	4,196	541	22
2000	22,608	8,121	210	885	389	1,484	210	0
Average								
85-00	38,270	18,142	1,417		1,980	3,670	981	358
91-00	33,633	16,556	1,618	729	2,731	4,787	981	358
2001	37,172	21,203	3,175	1,902	1,342	6,419	3,024	151

Appendix B. 7. Salmon catch and effort in the Alaskan District 108 commercial drift gillnet fishery, 1960-2001.

Permit days are adjusted for boats which did not fish the entire opening and may total less than the sum of the permits times days open.

	Catch					Effort	
						Permit	Days
Year	Chinook	Sockeye	Coho	Pink	Chum	Days	Open
1962	618	4,430	3,921	2,889	2,035		27
1963	1,430	9,979	11,612	10,198	11,024		53
1964	2,911	20,299	29,388	114,555	10,771		62
1965	3,106	21,419	8,301	4,729	2,480		48
1966	4,516	36,710	16,493	61,908	17,730		62
1967	6,372	29,226	6,747	4,713	5,955		40
1968	4,604	14,594	36,407	91,028	14,537		61
1969	5,021	19,209	5,790	11,877	2,311	967	46
1970	3,207	15,120	18,403	20,523	12,305	1,222	51
1971	3,717	18,143	14,876	21,806	4,665	1,070	57
1972	9,332	51,734	38,520	17,153	17,363	2,095	64
1973	9,254	21,387	5,837	6,585	6,680	1,519	39
1974	8,199	2,428	16,021	4,188	2,107	1,178	29
1975	1,534	0	0	0	1	258	8
1976	1,123	18	6,056	722	124	372	19
1977	1,443	48,374	14,405	16,253	4,233	742	23
1978	531	56	32,650	1,157	1,001	565	12
1979	91	2,158	234	13,478	1,064	94	5
1980	631	14,053	2,946	7,224	6,910	327	22
1981	283	8,833	1,403	1,466	3,594	177	9
1982	1,033	6,911	19,971	16,988	741	494	21
1983	47	178	15,369	4,171	675	263	17
1984	14	1,290	5,141	4,960	1,892	56	9
1985	20	1,060	1,926	5,325	1,892	70	14
1986	102	4,185	7,439	4,901	5,928	246	25
1987	149	1,629	1,015	3,343	949	81	13
1988	206	1,246	12	144	3,109	66	8
1989	310	10,083	4,261	27,640	3,375	216	28
1990	557	11,574	8,218	13,822	9,382	359	34
1991	1,504	22,275	15,864	10,935	11,402	643	49
1992	967	52,717	22,127	66,742	15,458	1,246	51
1993	1,628	76,874	14,307	39,661	22,504	1,569	48
1994	1,996	97,224	44,891	35,405	27,658	2,199	57
1995	1,702	76,756	17,834	37,788	54,296	1,729	50
1996	1,717	154,150	19,059	37,651	135,623	2,396	57
1997	2,566	93,039	2,140	65,745	38,913	1,699	44
1998	460	22,031	19,206	39,246	41,057	947	45
1999	1,049	36,548	28,437	48,550	117,196	1,675	54
2000	1,671	15,833	5,651	9,497	40,337	606	35
Averages							
60-00	2,195	26,251	13,407	22,691	16,905	848	36
91-00	1,526	64,745	18,952	39,122	50,444	1,471	49
2001	7	610	10,731	11,012	5,397	377	36

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Alaska Hatchery Contributions of Large Chinook and Coho salmon

	Large Chinnok		Coho	
	Hatchery	Wild	Hatchery	Wild
Alaska Hatchery Contribution				
1989	83	227	55	4,206
1990	249	308	2,536	5,682
1991	490	1,014	3,442	12,422
1992	439	528	7,067	15,060
1993	762	866	890	13,417
1994	594	1,402	2,043	42,848
1995	757	945	1,087	16,747
1996	839	878	1,269	17,790
1997	731	1,835	161	1,979
1998	302	158	3,042	16,164
1999	361	688	6,361	22,076
2000	934	737	2,801	2,850
Averages				
91-00	621	905	2,816	
2001	0	7	2,565	8,166

Appendix B. 8. Stock proportions and catches of sockeye salmon in the Alaskan District 108 commercial drift gillnet fishery, 1985-2001.

Data based on SPA.

			Stikine			Tahltan	
Year	Alaska	Canada	Tahltan	Tuya Mainstem	Total	Wild	Planted
1985	0.064	0.000	0.292	0.644	0.936		
1986	0.206	0.017	0.094	0.683	0.777		
1987[b]	0.125	0.000	0.438	0.437	0.875		
1988	0.213	0.039	0.178	0.571	0.749		
1989	0.117	0.054	0.034	0.795	0.829		
1990	0.395	0.128	0.111	0.366	0.477		
1991	0.173	0.118	0.395	0.314	0.709		
1992	0.163	0.051	0.258	0.528	0.786		
1993	0.231	0.114	0.256	0.399	0.655		
1994	0.326	0.208	0.362	0.103	0.466	0.246	0.116
1995	0.135	0.204	0.455	0.006	0.200	0.661	0.198	0.257
1996	0.102	0.082	0.622	0.069	0.125	0.816	0.552	0.070
1997	0.058	0.131	0.362	0.261	0.189	0.812	0.260	0.102
1998	0.115	0.108	0.189	0.244	0.343	0.777	0.182	0.008
1999	0.144	0.036	0.414	0.201	0.205	0.820	0.390	0.024
2000	0.204	0.128	0.132	0.261	0.275	0.669	0.100	0.032
Averages							
85-00	0.173	0.088	0.287		0.386	0.738		
91-00	0.165	0.118	0.345	0.174	0.268	0.717	0.275	0.087
2001	0.775	0.098	0.000	0.005	0.121	0.126	0.000	0.000
Catch							
1985	68	0	310		683	992		
1986	862	71	393		2,858	3,252		
1987	204	0	714		712	1,425		
1988	265	48	222		711	933		
1989	1,180	545	341		8,017	8,358		
1990	4,576	1,479	1,280		4,239	5,519		
1991	3,859	2,622	8,807		6,987	15,794		
1992	8,604	2,696	13,599		27,818	41,417		
1993	17,758	8,742	19,688		30,686	50,374		
1994	31,715	20,250	35,222		10,037	45,259	23,936	11,286
1995	10,374	15,641	34,950	461	15,330	50,741	15,224	19,726
1996	15,755	12,618	95,837	10,621	19,319	125,777	85,041	10,796
1997	5,381	12,152	33,644	24,288	17,574	75,506	24,144	9,500
1998	2,541	2,376	4,170	5,383	7,561	17,114	4,000	170
1999	5,255	1,313	15,134	7,360	7,486	29,980	14,258	876
2000	3,226	2,019	2,097	4,138	4,353	10,588	1,591	506
Averages							
85-00	6,976	5,161	16,650		10,273	30,189		
91-00	10,447	8,043	26,315	8,709	14,715	46,255	24,028	7,551
2001	473	60	0	3	74	77	0	0

[a]No data to separate Tahltan and Mainstem Stikine in 1987.

Appendix B. 9. Salmon catch in the Alaskan District 106 and 108 test fisheries, 1984-2001.

	Catch						
	Chinook						Boat
Year	Large	non large	Sockeye	Coho	Pink	Chum	Hours
Sub-district 106-41 (Sumner Strait)							
1984	13		1,370	101	975	793	5.94
1985	16		4,345	301	3,230	746	6.51
1986	23		982	177	60	248	4.14
1987	24		2,659	799	4,117	741	21.17
1988	11		1,020	89	137	772	5.04
1989	11		2,043	275	6,069	856	2.51
1990	13		2,256	432	372	552	0.29
1994	0		12	1	0	16	0.46
Sub-district 106-30 (Clarence Strait)							
1986	24		363	95	80	58	0.97
1987	1		899	589	1,705	467	16.00
1988	10		16	412	112	598	4.99
1989	4		37	464	431	329	
Total District 106							
1984	13		1,370	101	975	793	5.94
1985	16		4,345	301	3,230	746	6.51
1986	47		1,345	272	140	306	5.11
1987	25		3,558	1,388	5,822	1,208	37.17
1988	21		1,036	501	249	1,370	10.03
1989	15		2,080	739	6,500	1,185	2.51
1990	13		2,256	432	372	552	0.29
1994	0		12	1	0	16	0.46
District 108							
1984	37		641	11	822	813	
1985	33		1,258	11	465	381	2.99
1986	79		564	3	36	315	3.01
1987	30		290	13	1,957	488	3.20
1988	65		451	9	1,091	1,009	5.28
1989	15		1,038	45	2,459	283	2.64
1990	19		866	45	942	643	0.29
1991	21		893	18	390	455	6.46
1992	26		1,299	23	855	252	3.29
1993	30		303	0	18	31	1.88
1998	0		3,510	142	61	235	1.88
1999	29		4,801	217	429	1,368	1.88
2000	21		4,686	140	53	724	

Appendix B. 10. Stock proportions of sockeye salmon in the Alaskan District 106 and 108 test fisheries, 1984-2001.

Table only includes years when test fisheries were operated and catches included sockeye salmon.
Data based on scale pattern analysis.

			Stikine				Tahltan	
Year	Alaska	Canada	Tahltan	Tuya Mainstem		Total	Wild	Planted
Sub-district 106-41 (Sumner Strait) Proportions								
1984	0.658	0.269	0.029		0.044	0.074		
1985	0.480	0.401	0.109		0.010	0.119		
1986	0.834	0.149	0.008		0.009	0.017		
1987	0.816	0.166	0.015		0.003	0.018		
1988	0.868	0.098	0.034		0.000	0.034		
1989	0.624	0.304	0.017		0.056	0.072		
1990	0.548	0.416	0.014		0.022	0.035		
1994	0.500	0.250	0.250		0.000	0.250	0.167	0.083
Sub-district 106-30 (Clarence Strait) Proportions								
1986	0.726	0.272	0.000		0.002	0.002		
1987	0.844	0.140	0.004		0.012	0.016		
1988	0.746	0.254	0.000		0.000	0.000		
1989	0.514	0.486	0.000		0.000	0.000		
District 106 Proportions								
1984	0.658	0.269	0.029		0.044	0.074		
1985	0.480	0.401	0.109		0.010	0.119		
1986	0.805	0.182	0.006		0.007	0.013		
1987	0.823	0.160	0.012		0.006	0.017		
1988	0.867	0.100	0.033		0.000	0.033		
1989	0.622	0.307	0.016		0.055	0.071		
1990	0.548	0.416	0.014		0.022	0.035		
1994	0.500	0.250	0.250		0.000	0.250	0.250	0.000
District 108 Proportions								
1985	0.064	0.000	0.292		0.644	0.936		
1986	0.134	0.044	0.486		0.336	0.822		
1987	0.125	0.000	0.438		0.437	0.875		
1988	0.205	0.049	0.132		0.614	0.746		
1989	0.132	0.084	0.072		0.712	0.784		
1990	0.417	0.172	0.094		0.318	0.411		
1991	0.128	0.128	0.494		0.251	0.745		
1992	0.149	0.076	0.333		0.442	0.774		
1993	0.168	0.109	0.475		0.248	0.719		
1998	0.064	0.041	0.353	0.438	0.104	0.895	0.336	0.016
1999	0.162	0.019	0.481	0.298	0.041	0.820	0.453	0.028
2000	0.110	0.116	0.302	0.321	0.150	0.774	0.240	0.062

Appendix B. 11. Stock specific catches of sockeye salmon in the Alaskan District 106 and 108 test fisheries, 1984-2001.

Table only includes years when test fisheries were operated and catches included sockeye salmon.
Data based on scale pattern analysis.

			Stikine			Tahltan	
Year	Alaska	Canada	Tahltan[a]	Tuya Mainstem	Total	Wild	Planted
Sub-district 106-41 (Sumner Strait) Catches							
1984	901	368	40	61	101		
1985	2,085	1,741	475	44	519		
1986	819	146	8	9	17		
1987	2,169	442	39	9	47		
1988	886	100	35	0	35		
1989	1,274	621	34	114	148		
1990	1,237	939	31	49	80		
1994	6	3	3	0	3		
Subdistrict 106-30 (Clarence Strait) Catches							
1986	263	99	0	1	1		
1987	758	126	3	11	15		
1988	12	4	0	0	0		
1989	19	18	0	0	0		
District 106 Catches							
1984	901	368	40	61	101		
1985	2,085	1,741	475	44	519		
1986	1,082	245	8	9	17		
1987	2,928	568	42	20	62		
1988	898	104	35	0	35		
1989	1,293	639	34	114	148		
1990	1,237	939	31	49	80		
1994	6	3	3	0	3	3	0
District 108 Catches							
1985	81	0	367	810	1,177		
1986	76	25	274	190	464		
1987	36	0	127	127	254		
1988	93	22	59	277	336		
1989	137	87	75	739	814		
1990	361	149	81	275	356		
1991	114	114	441	224	665		
1992	194	99	432	574	1,006		
1993	51	33	144	75	219		
1998	224	145	1,238	1,538	365	3,141	1,181	57
1999	776	89	2,309	1,430	197	3,936	2,174	135
2000	516	544	1,416	1,505	705	3,626	1,125	291

Appendix B. 12. Salmon catch and effort in the Canadian commercial fishery in the lower Stikine River, 1979-2001.

	Catch						Effort	
	Chinook						Permit	
Year	Large	non large	Sockeye	Coho	Pink	Chum	Days	Days
1979[a]	712	63	10,534	10,720	1,994	424	756.0	42.0
1980	1,488		18,119	6,629	736	771	668.0	41.0
1981	664		21,551	2,667	3,713	1,128	522.0	32.0
1982	1,693		15,397	15,904	1,782	722	1,063.0	71.0
1983	492	430	15,857	6,170	1,043	274	434.0	54.0
1984[b]								
1985	256	91	17,093	2,172	2,321	532	145.5	22.5
1986	806	365	12,411	2,278	107	295	239.0	13.5
1987	909	242	6,138	5,728	646	432	287.0	20.0
1988	1,007	201	12,766	2,112	418	730	320.0	26.5
1989	1,537	157	17,179	6,092	825	674	325.0	23.0
1990	1,569	680	14,530	4,020	496	499	328.0	29.0
1991	641	318	17,563	2,638	394	208	282.4	39.0
1992	873	89	21,031	1,850	122	231	235.4	55.0
1993	830	164	38,464	2,616	29	395	483.8	58.0
1994	1,016	158	38,462	3,377	89	173	430.1	74.0
1995	1,067	599	45,622	3,418	48	256	534.0	59.0
1996	1,708	221	66,262	1,402	25	229	439.2	81.0
1997	3,283	186	56,995	401	269	222	569.4	89.0
1998	1,614	328	37,310	726	55	13	374.0	46.5
1999	2,127	789	32,556	181	11	8	261.3	31.0
2000	1,970	240	20,472	298	181	144	227.0	23.3
Averages								
79-00[c]	1,277	296	25,539	3,876	729	398	425	44
91-00	1,513	309	37,474	1,691	122	188	384	56
2001	826	59	19,872	233	78	56	173.0	23.0

[a] The lower river commercial catch in 1979 includes the upper river commercial catch.

[b] There was no commercial fishery in 1984.

[c] Chinook averages only since 1983 when large fish and jacks were recorded separately.

Appendix B. 13. Sockeye salmon stock proportions and catch by stock in the Canadian commercial fishery in the lower Stikine River, 1979-2001.

	Proportions			Planted	Catch			Tahltan			Fishery
Year	Tahltan	Tuya	Mainstem	Tahltan	Tahltan	Tuya	Mainstem	Wild	Planted	Stock Id Method	Timing
1979	0.433		0.567		4,561		5,973			circuli counts	
1980	0.309		0.691		5,599		12,520			circuli counts	
1981	0.476		0.524		10,258		11,293			circuli counts	
1982	0.624		0.376		9,608		5,789			circuli counts	
1983	0.422		0.578		6,692		9,165			circuli counts	
1984[a]										SPA	
1985	0.623		0.377		10,649		6,444			SPA	
1986	0.489		0.511		6,069		6,342			SPA&GPA	
1987	0.225		0.775		1,380		4,758			SPA&GPA	
1988	0.161		0.839		2,062		10,704			SPA&GPA	
1989	0.164		0.836		2,813		14,366			Eggs &TMR	
1990	0.346		0.654		5,029		9,501			Eggs &TMR	
1991	0.634		0.366		11,136		6,427			Eggs &TMR	
1992	0.482		0.518		10,134		10,897			Eggs &TMR	
1993	0.537		0.463		20,662		17,802			Eggs &TMR	
1994	0.616		0.384		23,678		14,784			Eggs &TMR	commercial
1995	0.676	0.020	0.304	0.195	30,848	893	13,881	21,936	8,912	Eggs &TMR	commercial
1996	0.537	0.113	0.350	0.066	35,584	7,465	23,213	31,197	4,387	Eggs &TMR	commercial
1997	0.356	0.272	0.372	0.072	20,269	15,513	21,213	16,175	4,094	Eggs &TMR	commercial
1998	0.335	0.352	0.313	0.020	12,498	13,137	11,675	11,751	747	Eggs &TMR	commercial
1999	0.576	0.241	0.183	0.021	18,742	7,862	5,952	18,046	696	Eggs &TMR	commercial
2000	0.252	0.397	0.350	0.039	5,165	8,136	7,171	4,364	801	Eggs &TMR	commercial
Averages											
79-00	0.442	0.233	0.492	0.069	12,068	8,834	10,946	17,245	3,273		
91-00	0.500	0.233	0.360	0.069	18,872	8,834	13,302	17,245	3,273		
2001	0.175	0.226	0.599	0.032	3,482	4,483	11,907	2,850	632	Eggs &TMR	test

[a] There was no commercial fishery in 1984.

Appendix B. 14. Salmon catch and effort in the Canadian commercial fishery in the upper Stikine River, 1975-2001.

	Catch						Effort	
	Chinook						Permit	
Year	Large	non large	Sockeye	Coho	Pink	Chum	Days	Days
1975	178		270	45	0	0		
1976	236		733	13	0	0		
1977	62		1,975	0	0	0		
1978	100		1,500	0	0	0		
1979[b]								
1980	156		700	40	20	0		
1981	154		769	0	0	0	11.0	5.0
1982	76		195	0	0	0	8.0	4.0
1983	75		614	0	0	4	10.0	8.0
1984[c]								
1985	62		1,084	0	0	0	14.0	6.0
1986	104	41	815	0	0	0	19.0	7.0
1987	109	19	498	0	0	19	20.0	7.0
1988	175	46	348	0	0	0	21.5	6.5
1989	54	17	493	0	0	0	14.0	7.0
1990	48	20	472	0	0	0	15.0	7.0
1991	117	32	761	0	0	0	13.0	6.0
1992	56	19	822	0	0	0	28.0	13.0
1993	44	2	1,692	0	0	0	48.0	22.0
1994	76	1	2,466	0	1	0	68.0	50.0
1995	9	17	2,355	0	0	0	54.0	25.0
1996	41	44	1,101	0	0	0	75.0	59.0
1997	45	6	2,199	0	0	0	42.0	29.0
1998	12	0	907	0	0	0	19.0	19.0
1999	24	12	625	0	0	0	19.0	18.0
2000	7	2	889	0	0	0	19.8	9.3
Averages								
75-00	61		1,012	4	1	1	27.3	16.2
91-00	43	14	1,382	0	0	0	38.6	25.0
2001	0	0	487	0	0	0	6.0	4.0

[b] Catches in 1979 were included in the lower river commercial catches.

[c] There was no commercial fishery in 1984.

[d] Chinook averages only since 1986 when large fish and jacks were recorded separately.

Appendix B. 15. Salmon catch in the Canadian Aboriginal fishery located at Telegraph Creek, on the Stikine River, 1972-2001.

	Catch					
	Chinook					
Year	Large	non large	Sockeye	Coho	Pink	Chum
1972			4,373	0	0	0
1973	200		3,670	0	0	0
1974	100		3,500	0	0	0
1975	1,024		1,982	5	0	0
1976	924		2,911	0	0	0
1977	100		4,335	0	0	0
1978	400		3,500	0	0	0
1979	850		3,000	0	0	0
1980	587		2,100	100	0	0
1981	586		4,697	200	144	0
1982	618		4,948	40	60	0
1983	851	215	4,649	3	77	26
1984	643	59	5,327	1	62	0
1985	793	94	7,287	3	35	4
1986	1,026	569	4,208	2	0	12
1987	1,183	183	2,979	3	0	8
1988	1,178	197	2,177	5	0	3
1989	1,078	115	2,360	6	0	0
1990	633	259	3,022	17	0	0
1991	753	310	4,439	10	0	0
1992	911	131	4,431	5	0	0
1993	929	142	7,041	0	0	0
1994	698	191	4,167	4	0	0
1995	570	244	5,490	0	0	7
1996	722	156	6,918	2	0	3
1997	1,155	94	6,365	0	0	0
1998	538	95	5,586	0	0	0
1999	765	463	4,874	0	0	0
2000	1,109	386	6,107	3	0	0
Averages						
73-00[b]	863		4,360	14	13	2
91-00	815	221	5,542	2	0	1
2001	665	44	5,241	0	0	0

[b] Chinook averages only since 1983 when large fish and jacks were record

Appendix B. 16. Stock specific sockeye salmon catches in the Canadian upper river commercial and Aboriginal fisheries in the Stikine River, 1972-2001.

	Upper River Commercial					Aboriginal Fishery				
				Tahltan					Tahltan	
Year	Tahltan	Tuya Mainstem		Wild	Planted	Tahltan	Tuya Mainstem		Wild	Planted
1972						3,936		437		
1973						3,303		367		
1974						3,150		350		
1975	243		27			1,784		198		
1976	660		73			2,620		291		
1977	1,778		198			3,902		434		
1978	1,350		150			3,150		350		
1979[a]						2,700		300		
1980	630		70			1,890		210		
1981	692		77			4,227		470		
1982	176		20			4,453		495		
1983	553		61			4,184		465		
1984[b]						4,794		533		
1985	976		108			6,558		729		
1986	734		82			3,787		421		
1987	448		50			2,681		298		
1988	313		35			1,959		218		
1989	444		49			2,124		236		
1990	425		47			2,720		302		
1991	685		76			3,995		444		
1992	740		82			3,988		443		
1993	1,523		169			6,337		704		
1994	2,219		247	1,904	315	3,750		417	3,217	533
1995	2,120	60	176	1,508	612	4,941	139	410	3,514	1,427
1996	945	150	6	824	121	5,802	972	144	4,931	871
1997	1,152	834	213	914	238	3,318	2,403	644	2,631	687
1998	363	517	27	336	27	2,352	3,103	131	2,227	125
1999	359	206	60	356	3	3,038	1,423	413	2,903	135
2000	224	581	84	224	0	1,733	3,989	385	1,681	52
Averages										
75-00	823		91			3,558		387		
91-00	1,033		114			3,925		413		
2001	213	229	45	148	65	1,795	2,939	507	1,454	341

[a] Catches in 1979 were included in the lower river commercial catches.

[b] There was no commercial fishery in 1984.

Appendix B. 17. Salmon catch in the combined Canadian net fisheries in the Stikine River, 1972-2001.

There was no commercial fishery in 1984.

Chinook averages only since 1983 when large and small fish were recorded separately.

ESSR catches not included.

	Catch					
	Chinook					
Year	Large	non large	Sockeye	Coho	Pink	Chum
1972	0		4,373	0	0	0
1973	200		3,670	0	0	0
1974	100		3,500	0	0	0
1975	1,202		2,252	50	0	0
1976	1,160		3,644	13	0	0
1977	162		6,310	0	0	0
1978	500		5,000	0	0	0
1979	1,562	63	13,534	10,720	1,994	424
1980	2,231		20,919	6,769	756	771
1981	1,404		27,017	2,867	3,857	1,128
1982	2,387		20,540	15,944	1,842	722
1983	1,418	645	21,120	6,173	1,120	304
1984[b]	643	59	5,327	1	62	0
1985	1,111	185	25,464	2,175	2,356	536
1986	1,936	975	17,434	2,280	107	307
1987	2,201	444	9,615	5,731	646	459
1988	2,360	444	15,291	2,117	418	733
1989	2,669	289	20,032	6,098	825	674
1990	2,250	959	18,024	4,037	496	499
1991	1,511	660	22,763	2,648	394	208
1992	1,840	239	26,284	1,855	122	231
1993	1,803	308	47,197	2,616	29	395
1994	1,790	350	45,095	3,381	90	173
1995	1,646	860	53,467	3,418	48	263
1996	2,471	421	74,281	1,404	25	232
1997	4,483	286	65,559	401	269	222
1998	2,164	423	43,803	726	55	13
1999	2,916	1,264	38,055	181	11	8
2000	3,086	628	27,468	301	181	144
Averages						
72-00[b]	2,128		23,691	2,824	541	291
91-00	2,371	544	44,397	1,693	122	189
2001	1,491	103	25,600	233	78	56

[b] There was no commercial fishery in 1984.

[c] Chinook averages only since 1983 when large fish and jacks were recorde

Appendix B. 18. Salmon catches in the Stikine River harvested under Canadian ESSR licenses, 1992-2001.

	Tahltan Area			Tuya Area				
	Catch					Tahltan		
Year	Total	Wild	Planted	Tahltan	Tuya Mainstem	Wild	Planted	Total
1993	1,752	1,714	38					0
1994	6,852	5,682	1,170					0
1995	10,740	6,680	4,060					0
1996	14,339	12,667	1,672		216			216
1997					2,015			2,015
1998					6,103			6,103
1999					2,822			2,822
2000					1,283			1,283
2001								0
Salmon taken for otolith samples when ESSR not operated.								
1997	378	302	76					
1998	390	364	26					
1999	429	404	25					
2000	406	324	82					
2001	50	30	20		410			

Appendix B. 19. Salmon catches and effort in Canadian test fisheries in the Stikine River, 1985-2001.

	Catches							Effort
	Chinook							Drift=#
Year	Large caught	Large released	non large	Sockeye	Coho	Pink	Chum	Set=hr.
Drift Test Fishery Catches								
1985								
1986	27		12	412	226	8	25	405
1987[b]	128			385	162	111	61	845
1988	168		14	325	75	9	33	720
1989	116		4	364	242	41	46	870
1990	167		6	447	134	5	29	673
1991	90		1	503	118	37	30	509
1992	135		27	393	75	13	23	312
1993	94		11	440	37	6	18	304
1994	43		4	179	71	6	20	175
1995	18		13	297	35	4	12	285
1996	42		5	262	55	4	55	245
1997	30		7	245	11	9	15	210
1998	25		11	190	207	20	40	820
1999	53		43	410	312	11	17	1,006
2000	59		4	374	60	9	45	694
Averages								
86-00	80		12	348	121	20	31	538
91-00	59		13	329	98	12	28	456
2001	128		3	967	257	74	47	883
Set Test Fishery Catches								
1985				1,340				
1986								
1987[b]	61			1,283	620	587	193	1,456
1988	101		15	922	130	23	65	1,380
1989	101		20	1,243	502	249	103	1,392
1990	64		12	1,493	271	42	48	1,212
1991	77		15	1,872	127	197	48	1,668
1992	62		21	1,971	193	56	43	1,249
1993	85		11	1,384	136	6	63	1,224
1994	74		34	414	0	0	0	456
1995	61		35	850	166	5	41	888
1996	64		40	338	0	0	0	312
1997								
1998								
1999	49		16	803	64	6	10	1,577
2000	87		0	1,015	181	25	120	3,715
Averages								
86-00	74		20	1,132	199	100	61	1,377
91-00	70		22	1,081	108	37	41	1,386
2001	56		7	2,223	1,078	124	61	2,688

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	Catches							Effort
	Chinook							Drift=#
Year	Large caught	released	non large	Sockeye	Coho	Pink	Chum	Set=hr.
Additional Test Fishery Catches								
1992	417		134	594	0	0	0	85
1993	389		65	1,925	2	1	3	266
1994	178		40	840	0	0	0	131
1995	169		136	1,423	26	1	9	222
1996	192		31	712	0	0	0	138
1997								
1998								
1999	751		38	4,683	16	18	2	531
2000	787		14	989	195	0	9	1,427
Averages								
92-00	412		65	1,595	34	3	3	400
2001	1,652		49	91	426	0	1	1,399
Total Test Fishery Catches								
1985	0		0	1,340	0	0	0	
1986	27		12	412	226	8	25	
1987	189		30	1,668	782	698	254	
1988	269		29	1,247	205	32	98	
1989	217		24	1,607	744	290	149	
1990	231		18	1,940	405	47	77	
1991	167		16	2,375	245	234	78	
1992	614		182	2,958	268	69	66	
1993	568		87	3,749	175	13	84	
1994	295		78	1,433	71	6	20	
1995	248		184	2,570	227	10	62	
1996	298		76	1,312	55	4	55	
1997	30		7	245	11	9	15	
1998	25		11	190	207	20	40	
1999	853		97	5,896	392	35	29	
2000	933	226	18	2,378	436	34	174	
Averages								
86-00	310		54	1,958	278	94	77	
91-00	403		76	2,311	209	43	62	
2001	1,836	401	59	3,281	1,761	198	109	

[a] 1987 jack chinook catch was for both set and drift nets.

Appendix B. 20. Sockeye salmon stock proportions and catch by stock in the test fishery in the lower Stikine River, 1985-2001.

	Catch					Proportions					
	Tahltan				Marked	Tahltan		Average			Fishery
Year	U.S.	Canada	Tuya	Mainstem	Tahltan	U.S.	Canada	Tahltan	Tuya	Mainstem Stock Id Method	Timing
1985	560	439		841		0.418	0.328	0.372		0.628 SPA	
1986	164	127		267		0.398	0.308	0.352		0.648 SPA&GPA	
1987	513	397		1,213		0.308	0.238	0.273		0.727 SPA&GPA	
1988	408	295		895		0.327	0.237	0.282		0.718 SPA&GPA	
1989		414		1,192			0.258	0.258		0.742 Eggs &TMR	
1990		822		1,058			0.454	0.454		0.546 Eggs &TMR	
1991		1,443		931			0.608	0.608		0.392 Eggs &TMR	
1992		1,912		1,046			0.646	0.646		0.354 Eggs &TMR	
1993		2,184		1,564			0.583	0.583		0.417 Eggs &TMR	
1994		1,228		205			0.857	0.857		0.143 Eggs &TMR	commercial
1995		2,064	20	486	729		0.803	0.803	0.008	0.189 Eggs &TMR	commercial
1996		875	116	321	108		0.667	0.667	0.088	0.245 Eggs &TMR	commercial
1997		97	54	94	20		0.396	0.396	0.220	0.384 Eggs &TMR	commercial
1998		70	51	69	4		0.368	0.368	0.268	0.363 Eggs &TMR	commercial
1999		3,031	1,564	1,301	113		0.514	0.514	0.265	0.221 Eggs &TMR	commercial
2000		605	982	791	94		0.254	0.254	0.413	0.333 Eggs &TMR	commercial
Averages											
85-00								0.480		0.441	
91-00								0.570	0.211	0.304	
2001		684	924	1,673	124		0.208	0.208	0.282	0.510 Eggs &TMR	test

Appendix B. 21. Estimated proportion of inriver run comprised of Tahltan, Tuya, and mainstem sockeye salmon stocks, 1979-2001.

Average proportions were from averages of weekly stock composition and migratory timing (from drift test fishery) estimates.

	Tahltan		Average				Fishery
Year	U.S.	Canada	Tahltan	Tuya	Mainstem	Stock Id Method	Timing
1979	0.433		0.433		0.567	circuli counts	
1980	0.305		0.305		0.695	circuli counts	
1981	0.475		0.475		0.525	circuli counts	
1982	0.618		0.618		0.382	circuli counts	
1983	0.489	0.423	0.456		0.544	circuli counts	
1984	0.635	0.394	0.493		0.507	SPA	
1985	0.621	0.363	0.466		0.534	SPA	
1986	0.398	0.500	0.449		0.551	SPA&GPA	
1987	0.338	0.257	0.304		0.696	SPA&GPA	
1988	0.209	0.122	0.172		0.828	SPA&GPA	
1989		0.188	0.188		0.812	Eggs &TMR	
1990		0.417	0.417		0.583	Eggs &TMR	
1991		0.561	0.561		0.439	Eggs &TMR	
1992		0.496	0.496		0.504	Eggs &TMR	
1993		0.477	0.477		0.523	Eggs &TMR	
1994		0.606	0.606		0.394	Eggs &TMR	commerci
1995		0.578	0.578	0.016	0.406	Eggs &TMR	commerci
1996		0.519	0.519	0.104	0.377	Eggs &TMR	commerci
1997		0.297	0.297	0.229	0.474	Eggs &TMR	commerci
1998		0.309	0.309	0.348	0.344	Eggs &TMR	commerci
1999		0.545	0.545	0.245	0.209	Eggs &TMR	commerci
2000		0.260	0.260	0.391	0.349	Eggs &TMR	commerci
Averages							
79-00			0.428		0.511		
91-00			0.465		0.402		
2001		0.202	0.202	0.268	0.530	Eggs &TMR	test

Appendix B. 22. Counts of adult sockeye salmon migrating through Tahltan Lake weir, 1959-2001.

Daily counts were unavailable in 1963. A rock slide blocked the enterance during some of the migration in 1965.

	Weir	Date of Arrival			Weir	Total	Brood-	Samples	Otolith	Spawners		
Year	Installed	First	50%	90%	Pulled	Count	stock	or ESSR	Samples	Total	Natural	Hatchery
1959	30-Jun	2-Aug	12-Aug	16-Aug		4,311						
1960	15-Jul	2-Aug	24-Aug	27-Aug		6,387						
1961	20-Jul	9-Aug	11-Aug	15-Aug		16,619						
1962	1-Aug	2-Aug	5-Aug	8-Aug		14,508						
1963	3-Aug					1,780						
1964	23-Jul	26-Jul	14-Aug	25-Aug		18,353						
1965	19-Jul	18-Jul	2-Sep	7-Sep		1,471						
1966	12-Jul	3-Aug	13-Aug	21-Aug		21,580						
1967	11-Jul	14-Jul	21-Jul	28-Jul		38,801						
1968	11-Jul	21-Jul	25-Jul	8-Aug		19,726						
1969	7-Jul	11-Jul	18-Jul	31-Jul		11,805						
1970	5-Jul	25-Jul	1-Aug	11-Aug		8,419						
1971	12-Jul	19-Jul	28-Jul	12-Aug		18,523						
1972	13-Jul	13-Jul	19-Jul	31-Aug	21-Aug	52,545						
1973	10-Jul	24-Jul	30-Jul	7-Aug	1-Sep	2,877						
1974	3-Jul	28-Jul	3-Aug	17-Aug	13-Sep	8,101						
1975	10-Jul	25-Jul	8-Aug	17-Aug	28-Aug	8,159						
1976	16-Jul	29-Jul	1-Aug	6-Aug	24-Aug	24,111						
1977	6-Jul	11-Jul	16-Jul	10-Aug	25-Aug	42,960						
1978	10-Jul	10-Jul	20-Jul	29-Jul	26-Aug	22,788						
1979	9-Jul	23-Jul	1-Aug	11-Aug	31-Aug	10,211						
1980	4-Jul	15-Jul	22-Jul	12-Aug	3-Sep	11,018						
1981	30-Jun	16-Jul	26-Jul	3-Aug	8-Sep	50,790						
1982	2-Jul	10-Jul	19-Jul	29-Jul	4-Sep	28,257						
1983	27-Jun	5-Jul	22-Jul	5-Aug	7-Sep	21,256						
1984	20-Jun	19-Jul	24-Jul	3-Aug	29-Aug	32,777						
1985	28-Jun	18-Jul	31-Jul	6-Aug	5-Sep	67,326						
1986	10-Jul	26-Jul	4-Aug	11-Aug	4-Sep	20,280						
1987	14-Jul	21-Jul	4-Aug	13-Aug	27-Aug	6,958						
1988	16-Jul	16-Jul	6-Aug	14-Aug	29-Aug	2,536						
1989	7-Jul	9-Jul	1-Aug	14-Aug	4-Sep	8,316	2,210			6,106		
1990	6-Jul	15-Jul	26-Jul	3-Aug	28-Aug	14,927	3,302			11,625		
1991	30-Jun	17-Jul	25-Jul	7-Aug	5-Sep	50,135	3,552			46,583		
1992	9-Jul	18-Jul	25-Jul	3-Aug	2-Sep	59,907	3,694			56,213		
1993	7-Jul	10-Jul	28-Jul	10-Aug	11-Sep	53,362	4,506	1,752		47,104	46,074	1,030
1994	7-Jul	14-Jul	30-Jul	9-Aug	7-Sep	46,363	3,378	6,852		36,133	29,961	6,172
1995	8-Jul	9-Jul	24-Jul	12-Aug	16-Sep	42,317	4,902	10,740		26,675	16,591	10,084
1996	6-Jul	14-Jul	22-Jul	4-Aug	10-Sep	52,500	4,402	14,339		33,759	29,823	3,936
1997	9-Jul	15-Jul	25-Jul	26-Aug	26-Sep	12,483	2,294		378	9,811	7,829	1,982
1998	9-Jul	11-Jul	25-Jul	26-Aug	17-Sep	12,658	3,099		390	9,169	8,553	616
1999	10-Jul	19-Jul	31-Jul	13-Aug	15-Sep	10,748	2,870		429	7,449	6,952	497
2000	9-Jul	21-Jul	25-Jul	3-Aug	4-Sep	6,076	1,717		406	3,953	3,152	801
Averages												
59-00	9-Jul	19-Jul	30-Jul	11-Aug	4-Sep	22,977						
91-00	7-Jul	14-Jul	26-Jul	11-Aug	11-Sep	34,655	3,441			27,685		
2001	8-Jul	19-Jul	31-Jul	9-Aug	14-Sep	14,811	2,386		50	12,375	7,475	4,900

Appendix B. 23. Aerial survey counts of Mainstem sockeye salmon stocks in the Stikine River drainage, 1984-2001.

The index represents the combined counts from eight spawning areas.

Survey conditions were exceptionally poor; therefore, the counts probably did reflect relative abundance.

Year	Chutine River	Scud River	Porcupine Slough	Christina Creek	Craig River	Bronson Slough	Verrett Creek	Verrett Slough	Escapement Index
1984	526	769	69	130	102		640		2,236
1985	253	282	69	67	27		383		1,081
1986	139	151	6	0	0		270		566
1987	6	490	62	6	30		103		697
1988	14	219	22	7	0		114		376
1989	29	269	133	10	60	60	180	68	809
1990	24	301	31	4	0	0	301	82	743
1991	0	100	61		7	32	179	8	387
1992	164	1,242	90	50	17	138	163	22	1,886
1993	57	321	141	28	2	79	107	142	877
1994	267	292	66			62	147	114	948
1995	13	260	11			72	47	31	434
1996	134	351	149			27	54	338	1,053
1997	204	271	25			12	116	32	660
1998	230	246	89			9	183	135	892
1999	56	301	64			54	98	78	651
2000	47	86	86			32	0	90	341
Averages									
84-00	127	350	69				181		861
91-00	117	347	78			52	109	99	813
2001	601	2,037	268			163	217	232	3,518

Appendix B. 24. Estimates of sockeye salmon smolt migrating through Tahltan Lake smolt weir, 1984-2001.

Estimate changes due to overcrowding mortality, 1987 and expansions by average % of outmigration by date from historical data90-92.

	Weir	Date of Arrival			Total	Total	Date and		Smolt	
Year	Installed	First	50%	90%	Count	Estimate	Expansion		Natural	Hatchery
1984	10-May	11-May	23-May	6-Jun		218,702				
1985	25-Apr	23-May	31-May	28-May		613,531				
1986	8-May	10-May	31-May	7-Jun		244,330				
1987	7-May	15-May	23-May	24-May		810,432				
1988	1-May	8-May	20-May	6-Jun		1,170,136				
1989	5-May	8-May	22-May	6-Jun		580,574				
1990	5-May	15-May	29-May	5-Jun	595,147	610,407	6/14	97.5%		
1991	5-May	14-May	21-May	30-May	1,439,676	1,487,265	6/13	96.8%	1,220,397	266,868
1992	7-May	13-May	21-May	27-May	1,516,150	1,555,026	6/14	97.5%	750,702	804,324
1993	7-May	11-May	17-May	22-May		3,255,045			2,855,562	399,483
1994	8-May	8-May	16-May	12-Jun		915,119			620,809	294,310
1995	5-May	6-May	13-May	11-Jun		822,284			767,027	55,257
1996	11-May	11-May	20-May	25-May		1,559,236			1,408,020	151,216
1997	7-May	11-May	23-May	30-May		518,202			348,685	169,517
1998	7-May	8-May	25-May	5-Jun		540,866			326,420	214,446
1999	6-May	10-May	9-Jun	15-Jun		762,033			468,488	293,545
2000	7-May	9-May	22-May	17-Jun		619,274			355,618	263,656
Averages										
84-00	05-May	11-May	23-May	03-Jun		957,792				
91-00	05-May	11-May	23-May	03-Jun		1,203,435			912,173	291,262
2001	6-May	7-May	24-May	18-Jun		1,495,642			841,268	654,374

Appendix B. 25. Weir counts of Chinook salmon at Little Tahltan River, 1985-2001.

Year	Weir Installed	Date of Arrival First	50%	90%	Total Count	Broodstock and Other	Natural Spawners	Total Natural Spawners
Large Chinook								
1985	3-Jul	4-Jul	30-Jul	6-Aug	3,114		3,114	
1986	28-Jun	29-Jun	21-Jul	5-Aug	2,891		2,891	
1987	28-Jun	4-Jul	24-Jul	2-Aug	4,783		4,783	
1988	26-Jun	27-Jun	18-Jul	3-Aug	7,292		7,292	
1989	25-Jun	26-Jun	23-Jul	2-Aug	4,715		4,715	
1990	22-Jun	29-Jun	23-Jul	4-Aug	4,392		4,392	
1991	23-Jun	25-Jun	20-Jul	3-Aug	4,506		4,506	
1992	24-Jun	4-Jul	21-Jul	30-Jul	6,627	-12	6,615	
1993	20-Jun	21-Jun	16-Jul	28-Jul	11,449	-12	11,437	
1994	18-Jun	28-Jun	22-Jul	2-Aug	6,387	-14	6,373	
1995	17-Jun	20-Jun	17-Jul	4-Aug	3,072	0	3,072	
1996	17-Jun	26-Jun	16-Jul	30-Jul	4,821	0	4,821	
1997	14-Jun	22-Jun	16-Jul	29-Jul	5,557	-10	5,547	
1998	13-Jun	19-Jun	14-Jul	29-Jul	4,879	-6	4,873	
1999	18-Jun	27-Jun	19-Jul	1-Aug	4,738	-5	4,733	
2000	19-Jun	23-Jun	21-Jul	5-Aug	6,640	-9	6,631	
Averages								
85-00	21-Jun	26-Jun	20-Jul	01-Aug	5,366		5,362	
91-00	18-Jun	24-Jun	18-Jul	31-Jul	5,868		5,861	
2001	20-Jun	23-Jun	18-Jul	2-Aug	9,738	-8	9,730	
non large Chinook								
1985	3-Jul	4-Jul	31-Jul	10-Aug	316			3,430
1986	28-Jun	3-Jul	25-Jul	6-Aug	572			3,463
1987	28-Jun	3-Jul	26-Jul	6-Aug	365			5,148
1988	26-Jun	27-Jun	17-Jul	2-Aug	327			7,619
1989	25-Jun	26-Jun	23-Jul	2-Aug	199			4,914
1990	22-Jun	5-Jul	22-Jul	30-Jul	417			4,809
1991	23-Jun	3-Jul	24-Jul	7-Aug	313			4,819
1992	24-Jun	12-Jul	22-Jul	30-Jul	131			6,758
1993	20-Jun	30-Jun	14-Jul	1-Aug	60			11,509
1994	18-Jun	2-Jul	22-Jul	5-Aug	121			6,508
1995	17-Jun	22-Jun	28-Jul	10-Aug	135			3,207
1996	17-Jun	12-Jul	25-Jul	5-Aug	22			4,843
1997	14-Jun	26-Jun	21-Jul	1-Aug	54			5,611
1998	13-Jun	26-Jun	20-Jul	7-Aug	37			4,916
1999	18-Jun	1-Jul	23-Jul	6-Aug	202			4,940
2000	19-Jun	23-Jun	20-Jul	5-Aug	108			6,748
Averages								
85-00	21-Jun	30-Jun	22-Jul	04-Aug	211			5,578
91-00	18-Jun	30-Jun	21-Jul	04-Aug	118			5,986
2001	20-Jun	23-Jun	27-Jul	3-Aug	269			10,007

Appendix B. 26. Index counts of Stikine large Chinook salmon escapements, 1979-2001.

Inriver run and escapement generated from mark-recapture studies, inriver and marine catched as reported in ADF&G fisheries data series reports

Total run from jointly accepted US and Canadian catch estimates. Counts do not include small Chinook. Terminal run includes only catches in the Stikine River and Dist

	Inriver	Inrvier		Marine	Total	% to	Little Tahltan		Tahltan	Beatty	Andrew Creek
Year	Run	Catches	Escapement	Catch	Run[c]	Little Tahltan	Weir	Aerial	Aerial	Aerial	Foot
1979								1,166	2,118		327
1980								2,137	960	122	282
1981								3,334	1,852	558	536
1982								2,830	1,690	567	672
1983								594	453	83	366
1984								1,294		126	389
1985							3,114	1,598	1,490	147	320
1986							2,891	1,201	1,400	183	708
1987							4,783	2,706	1,390	312	788
1988							7,292	3,796	4,384	593	564
1989							4,715	2,527		362	530
1990							4,392	1,755	2,134	271	664
1991							4,506	1,768	2,445	193	400
1992							6,627	3,607	1,891	362	778
1993							11,437	4,010	2,249	757	1,060
1994							6,373	2,422		184	572
1995							3,072	1,117	696	152	343
1996	31,718	2,769	28,949			0.167	4,821	1,920	772	218	335
1997	31,509	4,513	26,996			0.205	5,547	1,907	260	218	293
1998	28,133	2,165	25,968			0.188	4,873	1,385	587	125	487
1999	23,716	3,769	19,947			0.237	4,733	1,379			605
2000	30,301	2,770	27,531			0.241	6,631	2,720			690
Averages											
79-00								2,144			532
91-00							5,862	2,224			556
2001	66,646	4,103	62,543			0.156	9,730	4,258			1,054

Appendix B. 27. Index counts of Stikine coho salmon escapements, 1984-2001.

Missing data due to poor survey conditions and Craig count low in 2004 due to survey conditions.

Year	Date	Katete West	Katete	Craig	Verrett	Bronson Slough	Scud Slough	Porcupine	Christina	Total
1984	30-Oct	147	313	0	15	42				517
1985	25-Oct	590	1,217	735	39	0	924	365		3,870
1988	28-Oct	32	227		175		97	53	0	584
1989	29-Oct	336	896	992	848	120	707	90	55	4,044
1990	30-Oct	94	548	810	494		664	430		3,040
1991	29-Oct	302	878	985	218		221	352		2,956
1992	29-Oct	295	1,346	949	320		462	316		3,688
1993	30-Oct						206	324		
1994	1-Nov	28	652	1,026	466		448	1,105		3,725
1995	30-Oct	211	208	1,419	574		621	719		3,752
1996	30-Oct	163	232	205	549		630	1,466		3,245
1997	1-Nov	2	0	19	116		272	648		1,057
1998	30-Oct	14	63	141	282		143	450		1,093
1999	5-Nov	163	773	891	490		661	894		3,872
2000	2-Nov				5		95	206		306
Average										
91-00	30-Oct	149	529	744	378		402	543		2,614
2001	2-Nov	207	1,401	3,121	708		1,571	397		7,405

Appendix B. 28. Stikine River sockeye salmon run size, 1979-2001.

The averages for 1983-1985 are averages of weekly run timing estimates as well as stock composition estimates and are not simple averages of total estimates for the season.

Escapement includes fish later captured for broodstock and biological samples. Catches include test fishery catches.

	Inriver Run			Inriver		Marine	Total
Year	Canada	U.S.	Average	Catch	Escapement	Catch	Run
1979		40,353	40,353	13,534	26,819	8,299	48,652
1980		62,743	62,743	20,919	41,824	23,206	85,949
1981		138,879	138,879	27,017	111,862	27,538	166,417
1982		68,761	68,761	20,540	48,221	42,408	111,169
1983	77,260	66,838	71,683	21,120	50,563	5,772	77,455
1984	95,454	59,168	76,211	5,327	70,884	7,736	83,947
1985	237,261	138,498	184,747	26,804	157,943	29,747	214,494
1986			69,036	17,846	51,190	6,420	75,456
1987			39,264	11,283	27,981	4,085	43,350
1988			41,915	16,538	25,377	3,181	45,096
1989			75,054	21,639	53,415	15,492	90,546
1990			57,386	19,964	37,422	9,856	67,242
1991			120,152	25,138	95,014	34,323	154,476
1992			154,542	29,242	125,300	77,394	231,936
1993			176,100	52,698	123,402	104,630	280,730
1994			127,527	53,380	74,147	80,509	208,036
1995			142,308	66,777	75,531	76,420	218,728
1996			184,400	90,148	94,252	188,385	372,785
1997			125,657	67,819	57,838	101,258	226,915
1998			90,459	50,096	40,363	30,989	121,448
1999			65,879	46,773	19,106	58,735	124,614
2000			53,145	31,129	22,016	25,359	78,504
Averages							
79-00			98,464	33,442	65,021	43,716	142,179
91-00			124,017	51,320	72,697	77,800	201,817
2001			103,755	28,881	74,874	23,500	127,255
Tahltan sockeye run size							
1979			17,472	7,261	10,211	5,076	22,548
1980			19,137	8,119	11,018	11,239	30,376
1981			65,968	15,178	50,790	16,189	82,157
1982			42,493	14,236	28,257	20,918	63,412
1983			32,684	11,428	21,256	5,073	37,758
1984			37,571	4,794	32,777	3,102	40,673
1985			86,008	18,682	67,326	25,197	111,205
1986			31,015	10,735	20,280	2,757	33,771
1987			11,923	4,965	6,958	2,259	14,182
1988			7,222	4,686	2,536	2,129	9,351
1989			14,110	5,794	8,316	1,561	15,671
1990			23,923	8,996	14,927	2,307	26,230
1991			67,394	17,259	50,135	23,612	91,006
1992			76,681	16,774	59,907	28,218	104,899
1993			84,068	32,458	51,610	40,036	124,104
1994			77,239	37,728	39,511	65,101	142,340
1995			82,290	50,713	31,577	51,665	133,955
1996			95,706	57,545	38,161	147,435	243,141
1997			37,319	24,836	12,483	43,408	80,727
1998			27,941	15,283	12,658	7,086	35,027
1999			35,918	25,170	10,748	23,431	59,349
2000			13,803	7,727	6,076	5,340	19,143
Averages							
79-00			44,904	18,198	26,705	24,234	69,137
91-00			59,836	28,549	31,287	43,533	103,369
2001			20,985	6,174	14,811	6,339	27,324

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Year	Inriver Run			Inriver		Marine	Total
	Canada	U.S.	Average	Catch	Escapement	Catch	Run
Tuya sockeye run size							
1995			2,216	1,112	1,104	586	2,802
1996			19,158	8,919	10,239	19,442	38,600
1997			28,738	20,819	7,919	37,520	66,258
1998			31,442	22,911	8,531	15,941	47,383
1999			16,165	13,877	2,288	15,217	31,382
2000			20,779	14,971	5,808	13,255	34,034
2001			27,783	8,575	19,208	12,968	40,751
Mainstem sockeye run size							
1979			22,880	6,273	16,608	3,223	26,103
1980			43,606	12,800	30,806	11,967	55,573
1981			72,911	11,839	61,072	11,349	84,260
1982			26,267	6,304	19,964	21,490	47,757
1983			38,999	9,692	29,307	699	39,698
1984			38,640	533	38,107	4,634	43,274
1985			98,739	8,122	90,617	4,550	103,289
1986			38,022	7,111	30,910	3,663	41,685
1987			27,342	6,318	21,023	1,826	29,168
1988			34,693	11,852	22,841	1,052	35,745
1989			60,944	15,845	45,099	13,931	74,875
1990			33,464	10,968	22,495	7,549	41,013
1991			52,758	7,879	44,879	10,712	63,470
1992			77,861	12,468	65,393	49,176	127,037
1993			92,033	20,240	71,792	64,594	156,627
1994			50,288	15,652	34,636	15,408	65,696
1995			57,802	14,953	42,850	24,169	81,971
1996			69,536	23,684	45,852	21,508	91,044
1997			59,600	22,164	37,436	20,330	79,930
1998			31,077	11,902	19,175	7,962	39,039
1999			13,797	7,726	6,071	20,087	33,884
2000			18,563	8,431	10,132	6,764	25,327
Averages							
79-00			48,174	11,489	36,685	14,847	63,021
91-00			52,331	14,510	37,822	24,071	76,402
2001			54,987	14,132	40,855	4,193	59,180

Appendix C. 1. Weekly salmon catch and effort in the Alaskan District 111 and Subdistrict 111-32 (Taku Inlet), commercial drift gillnet fishery, 2001.

		Catch					Effort		
Week	Start Date	Chinook	Sockeye	Coho	Pink	Chum	Boats	Days Open	Boat Days
District 111 catches									
25	17-Jun	539	11,829	0	4	9,478	96	3.0	288
26	24-Jun	329	13,315	4	209	29,228	93	3.0	279
27	1-Jul	294	24,259	9	4,390	45,946	106	4.0	424
28	8-Jul	101	22,219	29	8,264	38,858	121	3.0	363
29	15-Jul	112	51,378	122	15,907	52,603	132	4.0	528
30	22-Jul	144	47,911	197	20,226	28,996	154	4.0	616
31	29-Jul	118	68,965	684	20,978	18,691	154	5.0	770
32	5-Aug	46	33,844	7,505	34,730	7,652	162	5.0	810
33	12-Aug	11	12,295	3,470	17,088	3,824	92	4.0	368
34	19-Aug	1	3,992	1,501	975	939	41	3.0	123
35	26-Aug	0	377	1,571	41	327	26	2.0	52
36	2-Sep	0	53	1,174	17	331	13	2.0	26
37	9-Sep	0	7	1,129	0	25	6	2.0	12
38	16-Sep	1	6	2,003	0	42	12	3.0	36
39	23-Sep	0	0	1,995	0	29	6	2.0	12
40	30-Sep	0	0	1,136	0	0	8	3.0	24
Total		1,696	290,450	22,529	122,829	236,969		55.0	4,731

Alaska Hatchery Contributions for Large Chinook and Coho					
		Large Chinook		Coho	
		Hatchery	Wild	Hatchery	Wild
25	17-Jun	0	539	0	0
26	24-Jun	102	227	0	4
27	1-Jul	80	214	0	9
28	8-Jul	109	-8	0	29
29	15-Jul	181	-69	0	122
30	22-Jul	0	144	0	197
31	29-Jul	0	118	3	681
32	5-Aug	0	46	283	7,222
33	12-Aug	0	11	365	3,105
34	19-Aug	0	1	69	1,432
35	26-Aug	0	0	195	1,376
36	2-Sep	0	0	217	957
37	9-Sep	0	0	89	1,040
38	16-Sep	0	1	275	1,728
39	23-Sep	0	0	77	1,918
40	30-Sep	0	0	15	1,121
Total		472	1,224	1,588	20,941

Subdistrict 111-32 Catches (Taku Inlet)									
25	17-Jun	539	11,669	0	4	9,363	95	3.0	285
26	24-Jun	284	12,201	4	196	26,462	91	3.0	273
27	1-Jul	224	19,782	2	3,866	35,845	102	4.0	408
28	8-Jul	64	17,872	16	7,329	22,725	105	3.0	315
29	15-Jul	71	40,945	91	12,467	26,865	121	4.0	484
30	22-Jul	47	27,728	132	12,272	11,313	125	4.0	500
31	29-Jul	41	32,292	453	6,735	6,021	110	5.0	550
32	5-Aug	16	13,159	1,090	5,166	2,456	92	5.0	460
33	12-Aug	3	3,312	1,340	912	665	33	4.0	132
34	19-Aug	0	476	930	176	363	26	3.0	78
35	26-Aug	0	197	1,262	38	279	21	2.0	42
36	2-Sep	0	37	1,064	13	274	12	2.0	24
37	9-Sep	0	7	1,129	0	25	6	2.0	12
38	16-Sep	1	6	2,003	0	42	12	3.0	36
39	23-Sep	0	0	1,995	0	29	6	2.0	12
40	30-Sep	0	0	1,136	0	0	8	3.0	24
Total		1,290	179,683	12,647	49,174	142,727		55.0	3,635

Subdistrict 111-34 Catches (Port Snettisham)

Appendix C. 2. Estimate of the proportion of natural and planted sockeye salmon stock groups harvested in the Alaskan District 111 commercial drift gillnet fishery by week, 2001.

Data based on analysis of scale patterns, otolith marks, and incidence of brain parasites. Does not include catches inside Port Snettisham

		Little Trapper			Tatsamenie		Total			Wild	U.S.
Week	Kuthai	Wild	Planted	Mainstem	Wild	Planted	Taku	Crescent	Speel	Snett.	Hatchery
25	0.760	0.187	0.000	0.045	0.000	0.003	0.995	0.005	0.000	0.005	0.000
26	0.403	0.358	0.000	0.225	0.000	0.011	0.996	0.000	0.001	0.002	0.002
27	0.202	0.350	0.000	0.309	0.076	0.004	0.942	0.001	0.050	0.051	0.007
28	0.030	0.220	0.000	0.404	0.202	0.008	0.864	0.055	0.053	0.108	0.028
29	0.012	0.124	0.000	0.367	0.280	0.045	0.827	0.015	0.064	0.080	0.093
30	0.031	0.100	0.000	0.226	0.241	0.040	0.637	0.009	0.035	0.045	0.318
31	0.000	0.058	0.000	0.251	0.282	0.044	0.635	0.010	0.015	0.024	0.341
32	0.000	0.055	0.000	0.229	0.207	0.028	0.519	0.026	0.002	0.028	0.453
33	0.000	0.030	0.000	0.190	0.084	0.026	0.330	0.000	0.050	0.050	0.619
34	0.000	0.030	0.000	0.190	0.084	0.026	0.330	0.000	0.050	0.050	0.619
35	0.000	0.030	0.000	0.190	0.084	0.026	0.330	0.000	0.050	0.050	0.619
36	0.000	0.030	0.000	0.190	0.084	0.026	0.330	0.000	0.050	0.050	0.619
37	0.000	0.030	0.000	0.190	0.084	0.026	0.330	0.000	0.050	0.050	0.619
38	0.000	0.030	0.000	0.190	0.084	0.026	0.330	0.000	0.050	0.050	0.619
39	0.000	0.030	0.000	0.190	0.084	0.026	0.330	0.000	0.050	0.050	0.619
40	0.000	0.030	0.000	0.190	0.084	0.026	0.330	0.000	0.050	0.050	0.619
Total	0.076	0.130	0.000	0.268	0.207	0.031	0.713	0.014	0.032	0.046	0.241

Appendix C. 3. Weekly stock-specific catch of wild and planted Taku River and Port Snettisham sockeye salmon harvested in the Alaskan District 111 commercial drift gillnet fishery, 2001.

Data based on analysis of scale patterns, otolith marks, and incidence of brain parasites. Does not include catches inside Port Snettisham

		Little Trapper			Tatsamenie		Total			Wild	U.S.
Week	Kuthai	Wild	Planted	Mainstem	Wild	Planted	Taku	Crescent	Speel	Snett.	Hatchery
25	8,994	2,208	0	532	0	31	11,765	64	0	64	0
26	5,360	4,773	0	2,990	0	141	13,264	5	18	23	28
27	4,900	8,501	0	7,501	1,838	103	22,843	35	1,201	1,236	180
28	674	4,895	0	8,971	4,489	175	19,204	1,219	1,181	2,400	615
29	605	6,362	0	18,869	14,376	2,288	42,500	789	3,298	4,087	4,791
30	1,509	4,769	0	10,809	11,555	1,901	30,543	443	1,698	2,141	15,227
31	0	3,981	0	17,343	19,436	3,044	43,804	658	1,015	1,673	23,488
32	0	1,867	0	7,751	7,004	939	17,561	884	77	961	15,322
33	0	372	0	2,331	1,037	320	4,060	0	620	620	7,616
34	0	121	0	757	337	104	1,318	0	201	201	2,473
35	0	11	0	71	32	10	124	0	19	19	234
36	0	2	0	10	4	1	17	0	3	3	33
37	0	0	0	1	1	0	2	0	0	0	4
38	0	0	0	1	1	0	2	0	0	0	4
39	0	0	0	0	0	0	0	0	0	0	0
40	0	0	0	0	0	0	0	0	0	0	0
Total	22,042	37,862	0	77,938	60,109	9,057	207,008	4,097	9,331	13,428	70,014

Appendix C. 4. Weekly salmon catch and effort in the Canadian commercial fishery in the Taku River, 2001.

		Catch						Effort		
	Start	Chinook						Average	Days	Permit
Week	Date	Large	non large	Sockeye	Coho	Pink	Chum	Permits	Fished	Days
25	17-Jun	408	1	2,117	0	0	0	8.67	3.00	26.00
26	24-Jun	621	78	4,312	0	0	0	10.00	3.00	30.00
27	1-Jul	262	30	3,928	0	0	0	10.50	4.00	42.00
28	8-Jul	90	5	3,094	23	0	0	12.33	3.00	37.00
29	15-Jul	60	3	9,641	36	0	0	13.00	3.50	45.50
30	22-Jul	13	1	7,401	99	0	0	8.40	5.00	42.00
31	29-Jul	3	0	8,449	357	0	0	10.00	5.00	50.00
32	5-Aug	0	0	5,456	427	0	0	10.00	5.00	50.00
33	12-Aug	1	0	2,813	752	0	0	10.75	4.00	43.00
34	19-Aug	0	0	449	692	0	0	4.33	3.00	13.00
35	26-Aug									
36	2-Sep									
37	9-Sep									
38	16-Sep									
39	23-Sep	0	0	0	182	0	0	1.00	3.00	3.00
Total		1,458	118	47,660	2,568	0	0		41.50	381.50

Appendix C. 5. Weekly stock proportions of sockeye salmon harvested in the Canadian commercial fishery in the Taku River, 2001.

Data based on analysis of scale patterns and thermal marks.

	Start		Little Trapper			Tatsamenie	
Week	Date	Kuthai	Wild	Planted	Mainstem	Wild	Planted
25	17-Jun	0.894	0.001	0.000	0.083	0.021	0.000
26	24-Jun	0.719	0.101	0.000	0.180	0.000	0.000
27	1-Jul	0.614	0.290	0.000	0.040	0.056	0.000
28	8-Jul	0.195	0.318	0.000	0.400	0.087	0.000
29	15-Jul	0.032	0.191	0.000	0.501	0.214	0.063
30	22-Jul	0.055	0.203	0.000	0.467	0.242	0.033
31	29-Jul	0.002	0.122	0.000	0.457	0.368	0.050
32	5-Aug	0.000	0.121	0.000	0.332	0.464	0.082
33	12-Aug	0.000	0.133	0.000	0.289	0.543	0.035
34	19-Aug	0.000	0.082	0.000	0.460	0.342	0.116
35	26-Aug	0.000	0.082	0.000	0.460	0.342	0.116
36	2-Sep	0.000	0.082	0.000	0.460	0.342	0.116
37	9-Sep	0.000	0.082	0.000	0.460	0.342	0.116
38	16-Sep	0.000	0.082	0.000	0.460	0.342	0.116
39	23-Sep	0.000	0.082	0.000	0.460	0.342	0.116
Total		0.184	0.168	0.000	0.364	0.246	0.039

Appendix C. 6. Weekly stock-specific catch of sockeye salmon in the Canadian commercial fishery in the Taku River, 2001.

Data based on analysis of scale patterns and thermal marks.

	Start		Little Trapper			Tatsamenie	
Week	Date	Kuthai	Wild	Planted	Mainstem	Wild	Planted
25	17-Jun	1,893	3	0	176	45	0
26	24-Jun	3,101	434	0	777	0	0
27	1-Jul	2,412	1,138	0	158	220	0
28	8-Jul	605	984	0	1,237	269	0
29	15-Jul	309	1,840	0	4,829	2,060	603
30	22-Jul	408	1,502	0	3,456	1,788	247
31	29-Jul	20	1,029	0	3,865	3,113	422
32	5-Aug	0	662	0	1,813	2,534	447
33	12-Aug	0	375	0	813	1,527	97
34	19-Aug	0	37	0	206	154	52
35	26-Aug	0	0	0	0	0	0
36	2-Sep	0	0	0	0	0	0
37	9-Sep	0	0	0	0	0	0
38	16-Sep	0	0	0	0	0	0
39	23-Sep	0	0	0	0	0	0
Total		8,748	8,005	0	17,331	11,709	1,868

Appendix C. 7. Weekly salmon catch and effort in the Canadian test and stock assessment fisheries in the Taku River, 2001.

		Catch						Effort		
	Start	Chinook						Average	Days	Permit
Week	Date	Large	non large	Sockeye	Coho	Pink	Chum	Permits	Fished	Days
17	22-Apr	0	0	0	0	0	0			
18	29-Apr	100	0	0	0	0	0			
19	6-May	129	24	0	0	0	0			
20	13-May	177	23	0	0	0	0			
21	20-May	260	40	1	0	0	0			
22	27-May	195	56	1	0	0	0			
23	3-Jun	192	58	43	0	0	0			
24	10-Jun	122	28	200	0	0	0			
34	19-Aug	0	0	0	0	0	0			
35	26-Aug	0	0	1	17	0	0			
36	2-Sep	0	0	0	5	0	0			
37	9-Sep	0	0	1	6	0	0			
38	16-Sep	0	0	0	2	0	0			
39	23-Sep	0	0	0	1	0	0			
40	30-Sep	0	0	0	0	0	0			
Total		1,175	229	247	31	0	0			
released		871		84	3,000		159			

Appendix C. 8. Mark-recapture estimate of above border run of sockeye, and coho salmon in the Taku River, 2001.

Recovery Week	Start Date		Above Border Run	Canadian Harvests				Above Border Escapement
				Commercial	Test	Aboriginal	Recreational	
Inseason Chinook Estimates								
19	6-May		648		204			444
20	13-May		2,879		174			2,705
21	20-May		11,166		232			10,934
22	27-May		11,712		196			11,516
23	3-Jun		12,157		194			11,963
24	10-Jun		10,809		123			10,686
Inseason Estimate			49,370		1,123			48,247
Final escapement estimate			49,598		1,175	125		46,644
Sockeye								
18-25	22-Apr		13,195	2,117	245			10,833
26	24-Jun		12,216	4,312	0			7,904
27	1-Jul		20,944	3,928	0			17,016
28	8-Jul		11,724	3,094	0			8,630
29	15-Jul		21,608	9,641	0			11,967
30	22-Jul		41,959	7,401	0			34,558
31	29-Jul		28,051	8,449	0			19,602
32	5-Aug		17,169	5,456	0			11,713
33	12-Aug		15,691	2,813	0			12,878
34-40	19-Aug		9,688	449	2			9,237
M-R Estimate			192,245					
95% C.I.		180,447	204,044					
Total Estimate			192,245	47,660	247	210		144,128
Coho								
28-33	8-Jul		12,174	1,694	0	0		10,480
34-36	19-Aug		21,130	692	17	13		20,408
37-41	9-Sep		74,189	182	14	487		73,506
M-R Estimate			107,493					
95% C.I.		89,136	125,849					
Total Estimate			107,493	3,099	31	500		104,394

Appendix C. 9. Daily counts of adult sockeye salmon passing through Tatsamenie weir, 2001.

Date	Count	Cumulative Count	Percent
11-Aug	---- Weir Fish Tight Aug 12---		
12-Aug	12	12	0.1
13-Aug	626	638	2.8
14-Aug	2,043	2,681	11.9
15-Aug	2,238	4,919	21.8
16-Aug	2,515	7,434	32.9
17-Aug	1,646	9,080	40.2
18-Aug	776	9,856	43.7
19-Aug	787	10,643	47.1
20-Aug	950	11,593	51.4
21-Aug	769	12,362	54.8
22-Aug	162	12,524	55.5
23-Aug	463	12,987	57.5
24-Aug	496	13,483	59.7
25-Aug	797	14,280	63.3
26-Aug	836	15,116	67.0
27-Aug	746	15,862	70.3
28-Aug	525	16,387	72.6
29-Aug	258	16,645	73.7
30-Aug	532	17,177	76.1
31-Aug	497	17,674	78.3
1-Sep	584	18,258	80.9
2-Sep	471	18,729	83.0
3-Sep	228	18,957	84.0
4-Sep	323	19,280	85.4
5-Sep	142	19,422	86.0
6-Sep	134	19,556	86.6
7-Sep	126	19,682	87.2
8-Sep	222	19,904	88.2
9-Sep	151	20,055	88.8
10-Sep	188	20,243	89.7
11-Sep	223	20,466	90.7
12-Sep	259	20,725	91.8
13-Sep	389	21,114	93.5
14-Sep	149	21,263	94.2
15-Sep	245	21,508	95.3
16-Sep	68	21,576	95.6
17-Sep	38	21,614	95.7
18-Sep	40	21,654	95.9
19-Sep	121	21,775	96.5
20-Sep	108	21,883	96.9
21-Sep	124	22,007	97.5
22-Sep	29	22,036	97.6
23-Sep	200	22,236	98.5
24-Sep	120	22,355	99.0
25-Sep	39	22,394	99.2
26-Sep	30	22,424	99.3
27-Sep	20	22,444	99.4
28-Sep	36	22,480	99.6
29-Sep	14	22,494	99.6
30-Sep	30	22,524	99.8
1-Oct	1	22,525	99.8
2-Oct	33	22,558	99.9
3-Oct	0	22,558	99.9
4-Oct	17	22,575	100.0
5-Oct	0	22,575	100.0
6-Oct	0	22,575	100.0
7-Oct	0	22,575	100.0
8-Oct	0	22,575	100.0
9-Oct	0	22,575	100.0
10-Oct	---- Weir Pulled ----		
Counts		22,575	
Outlet spawners		<15	
Broodstock		-2,996	
Adj. released fish*		486	
Spawners		19,579	

*The spawning success of the released fish is not known.

Appendix C. 10. Daily counts of adult sockeye salmon passing through Little Trapper Lake weir, 2001.

Date	Count	Cumulative Count	Cumulative Percent
25-Jul	---Weir Fish Tight ----		
26-Jul	17	17	0.10
27-Jul	16	33	0.20
28-Jul	62	95	0.56
29-Jul	287	382	2.27
30-Jul	96	478	2.84
31-Jul	160	638	3.78
1-Aug	110	748	4.44
2-Aug	379	1,127	6.68
3-Aug	614	1,741	10.33
4-Aug	1,576	3,317	19.67
5-Aug	1,447	4,764	28.26
6-Aug	932	5,696	33.78
7-Aug	706	6,402	37.97
8-Aug	902	7,304	43.32
9-Aug	342	7,646	45.35
10-Aug	1,817	9,463	56.13
11-Aug	1,644	11,107	65.88
12-Aug	1,727	12,834	76.12
13-Aug	1,168	14,002	83.05
14-Aug	704	14,706	87.22
15-Aug	586	15,292	90.70
16-Aug	323	15,615	92.62
17-Aug	225	15,840	93.95
18-Aug	269	16,109	95.55
19-Aug	288	16,397	97.25
20-Aug	30	16,427	97.43
21-Aug	118	16,545	98.13
22-Aug	65	16,610	98.52
23-Aug	68	16,678	98.92
24-Aug	36	16,714	99.13
25-Aug	22	16,736	99.26
26-Aug	32	16,768	99.45
27-Aug	36	16,804	99.67
28-Aug	10	16,814	99.73
29-Aug	13	16,827	99.80
30-Aug	5	16,832	99.83
31-Aug	9	16,841	99.89
1-Sep	16	16,857	99.98
2-Sep	1	16,858	99.99
3-Sep	0	16,858	99.99
4-Sep	0	16,858	99.99
5-Sep	0	16,858	99.99
6-Sep	0	16,858	99.99
7-Sep	2	16,860	100.00
8-Sep	0	16,860	100.00
9-Sep	0	16,860	100.00
10-Sep	---- Weir Pulled ----		
Count		16,860	
	females	8,049	
	males	8,811	
Spawners		16,860	

Appendix C. 11. Daily counts of adult sockeye salmon passing through the Kuthai Lake weir, 2001.

Date	Count	Cumulative Count	Cumulative Percent
4-Jul	—Weir Fish Tight —		
5-Jul	0	0	0.00
6-Jul	0	0	0.00
7-Jul	0	0	0.00
8-Jul	0	0	0.00
9-Jul	0	0	0.00
10-Jul	0	0	0.00
11-Jul	0	0	0.00
12-Jul	0	0	0.00
13-Jul	0	0	0.00
14-Jul	0	0	0.00
15-Jul	0	0	0.00
16-Jul	0	0	0.00
17-Jul	0	0	0.00
18-Jul	61	61	3.67
19-Jul	14	75	4.51
20-Jul	17	92	5.53
21-Jul	42	134	8.06
22-Jul	34	168	10.10
23-Jul	65	233	14.01
24-Jul	45	278	16.72
25-Jul	93	371	22.31
26-Jul	23	394	23.69
27-Jul	87	481	28.92
28-Jul	47	528	31.75
29-Jul	18	546	32.83
30-Jul	32	578	34.76
31-Jul	30	608	36.56
1-Aug	60	668	40.17
2-Aug	19	687	41.31
3-Aug	39	726	43.66
4-Aug	58	784	47.14
5-Aug	23	807	48.53
6-Aug	47	854	51.35
7-Aug	17	871	52.38
8-Aug	69	940	56.52
9-Aug	33	973	58.51
10-Aug	182	1,155	69.45
11-Aug	60	1,215	73.06
12-Aug	34	1,249	75.11
13-Aug	51	1,300	78.17
14-Aug	31	1,331	80.04
15-Aug	27	1,358	81.66
16-Aug	33	1,391	83.64
17-Aug	14	1,405	84.49
18-Aug	38	1,443	86.77
19-Aug	61	1,504	90.44
20-Aug	8	1,512	90.92
21-Aug	18	1,530	92.00
22-Aug	11	1,541	92.66
23-Aug	19	1,560	93.81
24-Aug	14	1,574	94.65
25-Aug	32	1,606	96.57
26-Aug	17	1,623	97.59
27-Aug	2	1,625	97.71
28-Aug	2	1,627	97.84
29-Aug	0	1,627	97.84
30-Aug	0	1,627	97.84
31-Aug	36	1,663	100.00
1-Sep	0	1,663	100.00
2-Sep	0	1,663	100.00
3-Sep	— Weir Pulled —		
Total count		1,663	

Appendix C. 12. Daily counts of large (>659mm MEF length) Chinook salmon carcasses at the Nakina River weir, 2001.

	Count				Cumulative	
Date	Female	Male	Unknown	Combined	Count	Percent
31-Jul				18	18	0.01
1-Aug				29	47	0.02
2-Aug				79	126	0.06
3-Aug				57	183	0.09
4-Aug				0	183	0.09
5-Aug				0	183	0.09
6-Aug				51	234	0.12
7-Aug				14	248	0.13
8-Aug				155	403	0.21
9-Aug				0	403	0.21
10-Aug				21	424	0.22
11-Aug				216	640	0.33
12-Aug				222	862	0.44
13-Aug				194	1056	0.54
14-Aug				244	1300	0.66
15-Aug				148	1448	0.74
16-Aug				207	1655	0.84
17-Aug				54	1709	0.87
18-Aug				106	1815	0.92
19-Aug				75	1890	0.96
20-Aug				20	1910	0.97
21-Aug				41	1951	0.99
22-Aug				8	1959	1.00
23-Aug				6	1965	1.00
Total	0	0		1,965		

Appendix D. 1. Salmon catches and effort in the Alaskan District 111 and Subdistrict 111-32 (Taku Inlet) commercial drift gillnet fishery, 1960-2001.

S. Chum and F. Chum refer to Summer and Fall runs of these fish, fish harvested prior to week 34 are considered summer chum, and fish harvested in week 34 and beyond are considered fall chum.
Days open are for the entire district and include openings to harvest spawner chinook salmon, 1960-1975.

	Catch						Effort	
							Boat	Days
Year	Chinook	Sockeye	Coho	Pink	S. Chum	F. Chum	Days	Open
District 111 Catches								
1960	8,810	42,819	22,374	33,155	8,754	33,098		60.0
1961	7,434	45,981	15,486	41,455	8,578	15,855		62.0
1962	5,931	36,745	15,661	17,280	7,453	13,182		52.0
1963	2,652	24,119	10,855	21,392	12,335	7,779		54.0
1964	2,509	34,140	29,315	26,593	4,970	7,883		56.0
1965	4,170	27,569	32,667	2,768	3,842	7,691		63.0
1966	4,829	33,925	26,065	23,833	5,015	30,118		64.0
1967	5,417	17,735	40,391	12,372	2,183	20,651		53.0
1968	4,904	19,501	39,103	67,365	5,747	16,143		60.0
1969	6,986	41,169	10,802	73,927	4,851	10,198	1,518	41.5
1970	3,357	50,922	44,960	197,017	19,593	90,797	2,688	53.0
1971	6,958	66,181	41,830	31,484	31,813	59,332	3,053	55.0
1972	10,955	80,404	49,780	144,339	67,126	80,831	3,103	51.0
1973	9,799	85,317	35,453	58,186	33,296	75,949	3,286	41.0
1974	2,908	38,670	38,667	57,731	11,263	75,423	2,315	29.5
1975	2,182	32,513	1,185	9,567	2,091	587	1,084	15.5
1976	1,757	61,749	41,729	14,962	6,027	75,776	1,914	25.0
1977	1,068	70,097	54,917	88,578	8,995	52,107	2,258	27.0
1978	1,926	55,398	31,944	51,385	9,076	27,178	2,174	26.0
1979	3,701	122,148	16,194	152,836	5,936	55,261	2,269	28.8
1980	2,251	123,451	41,677	296,572	33,627	159,020	4,123	30.9
1981	1,721	49,942	26,711	254,856	22,546	53,892	2,687	30.0
1982	3,057	83,625	29,072	109,297	14,867	22,741	2,433	35.5
1983	888	31,821	21,455	66,239	6,160	9,104	1,274	33.0
1984	1,773	77,233	33,836	145,971	45,811	40,930	2,757	52.5
1985	2,636	88,077	55,597	311,248	58,972	47,748	3,264	48.0
1986	2,584	73,061	30,512	16,568	29,909	28,883	2,129	32.8
1987	2,076	75,212	35,219	363,439	57,280	64,380	2,514	34.8
1988	1,779	38,923	44,881	157,831	80,307	59,271	2,135	32.0
1989	1,811	74,019	51,812	180,597	18,022	18,955	2,333	41.0
1990	3,480	126,884	67,530	153,036	112,336	33,463	3,188	38.3
1991	3,217	109,877	126,436	74,183	147,404	13,771	4,145	57.0
1992	2,341	135,411	172,662	314,445	97,725	14,802	4,550	50.0
1993	6,748	171,556	65,536	17,081	156,033	10,447	3,827	43.0
1994	5,047	105,861	188,501	401,525	198,002	16,169	5,078	66.0
1995	4,660	103,377	83,626	41,269	339,178	10,920	4,034	49.0
1996	2,659	199,014	33,633	12,660	347,612	6,455	3,229	46.0
1997	2,804	94,745	3,515	51,424	173,804	3,060	2,107	33.0
1998	794	69,677	28,713	168,283	291,416	4,695	3,070	48.0
1999	1,841	79,425	17,273	59,316	429,213	4,639	2,841	59.0
2000	1,137	168,272	7,546	54,716	665,582	3,013	2,919	40.0
Averages								
60-00	3,745	74,794	43,052	106,751	87,433	33,712		44
91-00	3,125	123,722	72,744	119,490	284,597	8,797	3,580	49
2001	1,696	290,450	22,529	122,829	235,276	1,693	4,731	54.0

Days open are for the entire district and include openings to harvest spawner chinook salmon, 1960-1975.

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	Catch						Effort	
Year	Chinook	Sockeye	Coho	Pink	S. Chum	F. Chum	Boat Days	Days Open
Subdistrict 111-32 Catches (Taku Inlet)								
1960	8,763	26,641	20,282	26,777	4,566	28,720	1,680	60.0
1961	7,269	30,805	14,618	34,615	6,863	14,876	2,901	62.0
1962	5,719	25,969	13,699	10,006	5,418	11,812	1,568	52.0
1963	2,547	16,079	9,406	18,102	8,085	7,071	1,519	51.0
1964	2,482	28,873	28,603	22,177	3,919	7,822	1,491	56.0
1965	4,146	23,828	32,382	2,641	3,604	7,691	1,332	60.0
1966	4,817	28,301	24,153	22,490	4,350	27,327	1,535	58.0
1967	5,351	14,537	39,983	11,619	1,569	20,463	1,663	50.0
1968	4,862	16,952	37,570	55,527	4,646	15,597	2,420	60.0
1969	6,874	38,260	10,131	66,991	4,233	9,926	1,413	42.0
1970	3,073	41,476	37,587	143,886	14,208	76,795	2,425	53.0
1971	6,753	62,459	38,571	30,765	31,110	54,696	2,849	55.0
1972	9,633	62,877	38,568	78,673	45,955	60,097	2,797	51.0
1973	9,525	80,063	29,770	55,234	30,817	61,025	3,135	41.0
1974	2,280	26,256	27,670	32,684	6,469	51,063	1,741	30.0
1975	1,998	28,201	429	8,084	1,639	31	986	15.0
1976	1,693	51,674	31,641	11,868	3,766	42,674	1,582	23.0
1977	754	47,512	48,403	67,072	5,436	43,595	1,879	27.0
1978	1,642	43,795	21,620	41,624	7,142	18,101	1,738	24.0
1979	3,016	103,043	12,741	114,324	4,317	46,142	2,011	29.0
1980	1,986	108,577	35,814	241,085	25,779	131,126	3,634	31.0
1981	1,325	39,963	20,936	98,524	10,407	40,212	1,740	22.0
1982	2,841	75,012	24,761	77,942	11,558	18,363	2,130	36.0
1983	689	25,957	17,665	40,996	3,171	7,813	1,065	31.0
1984	1,414	59,229	25,951	83,028	28,214	27,967	2,120	39.0
1985	2,152	70,160	45,106	176,710	35,897	40,530	2,116	37.0
1986	1,877	60,106	26,474	9,772	14,646	24,790	1,413	30.0
1987	1,534	54,436	23,342	200,203	31,992	28,891	1,517	30.0
1988	949	23,752	33,159	41,625	25,969	27,010	1,213	29.0
1989	1,606	68,104	44,034	141,385	15,254	15,491	1,909	36.0
1990	2,432	110,006	60,078	101,168	88,350	29,099	2,879	38.0
1991	2,614	96,006	118,902	44,347	97,577	12,279	3,324	52.0
1992	1,672	103,238	152,598	180,340	57,153	11,649	3,407	43.0
1993	4,413	144,982	58,062	8,801	101,356	7,760	3,372	43.0
1994	3,051	88,625	156,314	198,507	129,350	12,280	3,960	60.0
1995	3,497	81,266	70,826	18,469	192,557	8,786	3,061	45.0
1996	2,412	188,412	31,828	12,123	294,890	5,245	2,685	41.0
1997	2,724	84,115	2,993	38,794	143,354	1,936	1,761	30.0
1998	634	47,413	24,606	85,269	192,057	2,800	2,007	39.0
1999	1,762	68,914	14,086	43,958	327,706	2,643	2,563	58.0
2000	1,032	127,274	6,299	25,729	453,147	1,311	2,325	38.0
Averages								
60-00	3,313	61,540	36,870	66,437	60,451	25,939	2,167	42
91-00	2,381	103,025	63,651	65,634	198,915	6,669	2,847	45
2001	1,290	179,683	12,647	49,174	141,715	1,012	3,635	55.0

Appendix D. 2. Stock proportions and catches of sockeye salmon in the Alaska District 111 commercial drift gillnet fishery, 1983-2001.

Data based on analysis of scale patterns, otolith marks, and incidence of brain parasites. Does not include catches inside Port Snettisham

		Little Trapper			Tatsamenie		Total			Wild	U.S.
Week	Kuthai	Wild	Planted	Mainstem	Wild	Planted	Taku	Crescent	Speel	Snett.	Planted
Proportions											
1983							0.755			0.245	
1984							0.758			0.242	
1985							0.838			0.162	
1986	0.061	0.266		0.303	0.204		0.834	0.090	0.076	0.166	
1987	0.078	0.234		0.376	0.031		0.720	0.157	0.123	0.280	
1988	0.118	0.158		0.305	0.082		0.663	0.266	0.071	0.337	
1989[a]	0.077				0.156		0.849	0.051	0.100	0.152	
1990	0.036	0.197		0.336	0.286		0.855	0.112	0.033	0.145	
1991	0.039	0.297		0.373	0.232		0.941	0.059	0.000	0.059	
1992	0.048	0.220		0.445	0.191		0.904	0.036	0.060	0.096	
1993	0.062	0.328		0.308	0.123		0.822	0.069	0.109	0.178	
1994	0.110	0.356		0.361	0.091		0.917	0.036	0.022	0.058	0.025
1995	0.046	0.214	0.010	0.428	0.153	0.029	0.880	0.018	0.075	0.093	0.026
1996	0.069	0.117	0.010	0.499	0.232	0.014	0.941	0.013	0.032	0.045	0.014
1997	0.067	0.170	0.011	0.282	0.286	0.011	0.826	0.027	0.026	0.053	0.120
1998	0.087	0.158	0.008	0.209	0.245	0.004	0.710	0.026	0.007	0.033	0.257
1999	0.176	0.259	0.003	0.235	0.119	0.005	0.797	0.049	0.023	0.072	0.131
2000	0.139	0.273	0.002	0.211	0.151	0.008	0.783	0.004	0.054	0.058	0.160
Average[b]											
86-00	0.081	0.232		0.334	0.173		0.828	0.069	0.051	0.119	
91-00	0.084	0.239	0.007	0.335	0.182	0.012	0.852	0.034	0.041	0.074	0.105
2001	0.076	0.130	0.000	0.268	0.207	0.031	0.713	0.014	0.032	0.046	0.241
Catches											
1983							24,025			7,796	
1984							58,543			18,690	
1985							73,809			14,268	
1986	4,489	19,441		22,104	14,900		60,934	6,610	5,516	12,127	
1987	5,893	17,594		28,286	2,352		54,124	11,814	9,274	21,088	
1988	4,598	6,153		11,865	3,194		25,811	10,365	2,748	13,112	
1989a	5,696				11,536		62,805	3,789	7,425	11,214	
1990	4,539	24,952		42,676	36,332		108,499	14,242	4,143	18,385	
1991	4,295	32,685		40,957	25,475		103,412	6,465	0	6,465	
1992	6,543	29,818		60,224	25,853		122,438	4,912	8,060	12,972	
1993	10,673	56,350		52,876	21,139		141,038	11,877	18,641	30,518	
1994	11,638	37,644		38,179	9,585		97,046	3,859	2,319	6,178	2,637
1995	4,788	22,109	1,017	44,278	15,767	3,049	91,008	1,901	7,741	9,642	2,727
1996	13,742	23,307	1,920	99,231	46,148	2,859	187,207	2,544	6,416	8,960	2,848
1997	6,345	16,105	1,031	26,694	27,107	1,006	78,288	2,558	2,510	5,068	11,389
1998	6,055	11,018	570	14,560	17,040	250	49,493	1,784	500	2,284	17,900
1999	14,916	20,596	247	18,680	9,421	367	63,327	3,879	1,814	5,693	10,405
2000	23,357	45,977	279	35,451	25,347	1,301	131,712	621	9,088	9,709	26,851
Average[b]											
86-00	8,641	25,982		38,290	19,976		93,881	5,959	5,626	11,586	
91-00	10,145	29,561	844	43,113	22,288	1,472	106,497	4,040	5,709	9,749	10,680
2001	22,042	37,862	0	77,938	60,109	9,057	207,008	4,097	9,331	13,428	70,014

[a] The Trapper and Mainstem groups were combined in the 1989 analysis and were 45,573 fish.

[b] Averages for individual stocks do not include 1989.

Appendix D. 3. Proportion of wild Taku River sockeye salmon in the Alaskan District 111 commercial drift gillnet catch by week, 1983-2001.

Data based on scale patterns and incidence of brain parasites and includes only wild fish (estimated from thermal mark analysis).

	Week										
Year	25	26	27	28	29	30	31	32	33	34	Total
1983		0.996	0.842	0.819	0.663	0.527	0.836	0.534	0.719	0.759	0.755
1984	0.970	0.956	0.843	0.670	0.588	0.712	0.728	0.809	0.726		0.758
1985	0.999	0.986	0.928	0.974	0.868	0.706	0.737	0.826	0.801		0.838
1986	0.938	0.953	0.873	0.880	0.852	0.777	0.851	0.757	0.893	0.739	0.834
1987		0.982	0.901	0.884	0.948	0.414	0.619	0.689	0.841	0.731	0.720
1988		0.964	0.886	0.889	0.510	0.643	0.677	0.528	0.478	0.346	0.663
1989	0.943	0.989	0.979	0.852	0.835	0.641	0.681	0.919	0.676		0.848
1990	0.874	0.935	0.904	0.773	0.782	0.863	0.943	0.939	0.878	0.862	0.855
1991	0.988	0.979	0.953	0.979	0.951	0.933	0.936	0.890	0.885	0.875	0.941
1992		0.978	0.985	0.956	0.916	0.943	0.893	0.858	0.766	0.766	0.904
1993		0.961	0.901	0.837	0.856	0.781	0.790	0.829	0.738	0.706	0.822
1994		1.000	0.981	0.973	0.967	0.870	0.835	0.938	0.804	0.901	0.917
1995	0.942	0.889	0.903	0.858	0.872	0.868	0.761	0.759	0.705	0.740	0.841
1996	1.000	0.998	0.909	0.974	0.950	0.991	0.914	0.945	0.879	0.804	0.953
1997	0.992	0.970	0.910	0.926	0.951	0.939	0.939	0.925	0.872	0.906	0.938
1998		0.964	0.974	0.978	0.971	0.949	0.948	0.942	0.997	0.857	0.955
1999		0.966	0.988	0.953	0.934	0.917	0.878	0.833	0.732	0.665	0.917
2000		0.973	0.962	0.958	0.929	0.898	0.872	0.907	0.908	0.858	0.931
Average											
83-00	0.961	0.969	0.923	0.896	0.852	0.798	0.824	0.824	0.794	0.768	0.855
91-00	0.981	0.968	0.947	0.939	0.930	0.909	0.877	0.883	0.829	0.808	0.912
2001	0.995	0.998	0.948	0.888	0.908	0.930	0.961	0.945	0.858	0.858	0.936

Appendix D. 4. Salmon catch in the U.S. subsistence and personal use fisheries in the Taku River, 1967-2001.

The subsistence fishery was open 1967 to 1976 and 1985 and the personal use fishery was open 1989-2010. The harvests are miminum estimates because not all permits are filled out and returned.

	Catch					
Year	Chinook	Sockeye	Coho	Pink	Chum	Permits
1967	0	103	221	9	25	
1968	3	41	196	19	10	
1969	0	122	8	11	0	
1970	0	304	0	20	8	
1971	0	512	0	42	0	
1972	0	554	0	103	7	
1973	0	1,227	0	64	14	
1974	0	1,431	0	118	5	
1975	0	170	0	3	0	
1976	0	351	4	22	0	
1985	0	920	35	16	1	54
1989	25	562	57	591	16	75
1990	26	793	103	111	46	95
1991	25	800	86	97	2	88
1992	21	1,217	88	100	0	125
1993	9	1,201	25	93	3	128
1994	21	1,111	93	76	3	116
1995	18	990	97	40	6	106
1996	33	1,189	67	110	5	130
1997	16	1,053	27	86	1	123
1998	15	1,153	86	225	2	130
1999	22	1,254	44	105	3	147
2000	22	1,134	31	68	7	128
2001	8	1,462	22	195	11	163
Averages						
67-00	11	793	55	93	7	
91-00	20	1,115	64	100	3	122
2001	8	1,462	22	195	11	163

Appendix D. 5. Salmon catch and effort in the Canadian commercial fishery in the Taku River, 1979-2001.

	Catch						Effort	
	Chinook						Boat	Days
Year	Large	non large	Sockeye	Coho	Pink	Chum	Days	Open
1979	97		13,578	6,006	13,661	15,474	599	50.0
1980	225		22,602	6,405	26,821	18,516	476	39.0
1981	159		10,922	3,607	10,771	5,591	243	31.3
1982	54		3,144	51	202	3	38	13.0
1983	156	400	17,056	8,390	1,874	1,760	390	64.0
1984	294	221	27,242	5,357	6,964	2,492	288	30.0
1985	326	24	14,244	1,770	3,373	136	178	16.0
1986	275	77	14,739	1,783	58	110	148	17.0
1987	127	106	13,554	5,599	6,250	2,270	280	26.0
1988	555	186	12,014	3,123	1,030	733	185	14.7
1989	895	139	18,545	2,876	695	42	271	25.3
1990	1,258	128	21,100	3,207	378	12	295	28.3
1991	1,177	432	25,067	3,415	296	2	284	25.0
1992	1,445	147	29,472	4,077	0	7	291	27.0
1993	1,619	171	33,217	3,033	16	15	363	34.0
1994	2,065	235	28,762	14,531	168	18	497	74.0
1995	1,577	298	32,640	13,629	2	1	428	51.1
1996	3,331	144	41,665	5,028	0	0	415	65.0
1997	2,731	84	24,003	2,594	0	1	394	47.0
1998	1,107	227	19,038	5,090	0	2	299	42.0
1999	908	257	20,681	4,416	0	0	300	34.0
2000	1,576	87	28,009	4,395	0	0	351	39.0
Averages								
79-00	998	187	21,422	4,926	3,298	2,145	319	36
91-00	1,754	208	28,255	6,021	48	5	362	44
2001	118	1,458	47,660	2,568	0	0	382	41.5

Appendix D. 6. Sockeye salmon stock proportions and catch by stock in the Canadian commercial fishery on the Taku River, 1986-2001.

Data based on scale pattern, brain parasite, and thermal mark analyses.

		Little Trapper			Tatsamenie		Other	Total	Total
Year	Kuthai	Wild	Planted	Mainstem	Wild	Planted	Hatchery	Wild	Planted
Proportions									
1986	0.111	0.397		0.350	0.143			1.000	
1987	0.062	0.201		0.649	0.088			1.000	
1988	0.143	0.417		0.343	0.098			1.000	
1989[a]	0.053	a		a	0.203			1.000	
1990	0.112	0.388		0.338	0.163			1.000	
1991	0.064	0.308		0.452	0.176			1.000	
1992	0.092	0.240		0.569	0.099			1.000	
1993	0.126	0.392		0.432	0.049			1.000	
1994	0.158	0.482		0.302	0.058			1.000	
1995	0.047	0.427	0.010	0.373	0.112	0.031		0.959	0.041
1996	0.105	0.221	0.008	0.442	0.215	0.010		0.982	0.018
1997	0.120	0.282	0.019	0.277	0.294	0.008		0.973	0.027
1998	0.225	0.207	0.028	0.254	0.283	0.003		0.969	0.031
1999	0.389	0.305	0.008	0.145	0.147	0.006		0.986	0.014
2000	0.172	0.205	0.000	0.326	0.282	0.016		0.984	0.016
Averages[b]									
86-00	0.132	0.319	0.012	0.375	0.161	0.012		0.990	0.024
91-00	0.150	0.307	0.012	0.357	0.172	0.012		0.985	0.024
2001	0.184	0.168	0.000	0.364	0.246	0.039		0.961	0.039
Catch									
1986	1,629	5,855		5,152	2,103			14,739	
1987	834	2,728		8,793	1,199			13,554	
1988	1,715	5,005		4,122	1,172			12,014	
1989[a]	990	a		a	3,763			18,545	
1990	2,355	8,183		7,131	3,431			21,100	
1991	1,601	7,721		11,327	4,418			25,067	
1992	2,699	7,085		16,764	2,924			29,472	
1993	4,192	13,036		14,347	1,641			33,217	
1994	4,544	13,858		8,684	1,676			28,762	
1995	1,528	13,934	331	12,185	3,659	1,003		31,306	1,334
1996	4,357	9,195	331	18,422	8,959	401		40,933	732
1997	2,891	6,758	456	6,637	7,060	201		23,346	657
1998	4,279	3,944	533	4,829	5,397	56		18,449	589
1999	8,044	6,314	171	2,992	3,034	126		20,384	297
2000	4,809	5,745	0	9,122	7,897	436		27,573	436
Averages[b]									
86-00	3,098	7,812	304	9,322	3,889	371		23,897	674
91-00	3,894	8,759	304	10,531	4,667	371		27,851	674
2001	8,748	8,005	0	17,330	11,709	1,868		45,792	1,868

[a] The Trapper and Mainstem groups were combined in the 1989 analysis with 13,792 fish or .744 proportion.

[b] Averages do not include 1989.

Appendix D. 7. Salmon catches in the Canadian Aboriginal fishery on the Taku River, 1980-2001.

	Chinook					
Year	Large	non large	Sockeye	Coho	Pink	Chum
1980	85		150	0	0	15
1981						
1982						
1983	9		0	0	0	0
1984	0		50	15	0	0
1985	4		167	22	0	0
1986	10		200	50	0	0
1987	0		96	113	0	0
1988	27		245	98	0	0
1989	6		53	146	0	0
1990	0		89	6	0	0
1991	0		150	20	0	0
1992	121		352	187	0	0
1993	25		140	8	0	0
1994	119		239	162	4	0
1995	70		71	109	0	7
1996	63		360	24	0	0
1997	103		349	96	0	0
1998	60		239	0	0	0
1999	50		382	471	0	0
2000	50		140	342	0	0
Averages						
83-00	40		185	104	0	0
91-00	66		242	142	0	1
2001	125		210	500	0	25

Appendix D. 8. Salmon catch in the Canadian test fishery in the Taku River, 1987-2001.

	Catch					
	Chinook					
Year	Large	non large	Sockeye	Coho	Pink	Chum
1987			237	807		
1988	72		708	422	52	222
1989	31		207	1,011	0	13
1990	48		285	472	0	0
1991	0		163	2,004	3	295
1992	0		38	1,277	0	76
1993[a]	0		166	1,593	0	50
1994	There was no Canadian test fishery in 1994.					
1995	There was no Canadian test fishery in 1995.					
1996	There was no Canadian test fishery in 1996.					
1997						
1998	There was no Canadian test fishery in 1998.					
1999	577	2	88	688	0	0
2000	1,312	87	319	710	0	0
2001	1,175	229	247	31	0	0

additional fish released

	Catch release					
	Chinook					
	Large	non large	Sockeye	Coho	Pink	Chum
1997			1	39		
1998						
1999	181					
2000	439					
2001	871		82	2,976		159

[a] Incomplete harvest data.

Appendix D. 9. Taku River sockeye salmon run size, 1984-2001.

Run estimate does not include spawning escapements below the U.S./Canada border. The early season sockeye expansion is based on the proportion of fish wheel sockeye catch that occurs before the fishery opens.

Year	Above Border M-R Run Estimate	Start Date	Expansion Method	Factor	Expanded Run Estimate	Canadian Catch	Escape.	U.S. Catch a	Total Run	Exploitation Rate
1984	133,414	17-Jun	Ave.(88-90&95-96) FW CPUE	0.056	141,254	27,292	113,962	58,543	199,796	0.430
1985	118,160	16-Jun	Ave.(88-90&95-96) FW CPUE	0.047	123,974	14,411	109,563	74,729	198,703	0.449
1986	104,162	22-Jun	Ave.(88-90&95-96) FW CPUE	0.095	115,045	14,939	100,106	60,934	175,980	0.431
1987	87,554	21-Jun	Ave.(88-90&95-96) FW CPUE	0.088	96,023	13,887	82,136	55,154	151,178	0.457
1988	86,629	19-Jun	1988 FW CPUE	0.065	92,641	12,967	79,674	25,811	118,452	0.327
1989	99,467	18-Jun	1989 FW CPUE	0.128	114,068	18,805	95,263	63,367	177,435	0.463
1990	117,385	10-Jun	1990 CPUE	0.002	117,573	21,474	96,099	109,292	226,865	0.576
1991	153,773	9-Jun	Ave.(88-90&95-96) FW CPUE	0.007	154,873	25,380	129,493	104,931	260,103	0.502
1992	162,003	21-Jun	Ave.(88-90&95-96) FW CPUE	0.032	167,376	29,862	137,514	123,655	291,031	0.527
1993	138,523	13-Jun	Ave.(88-90&95-96) FW CPUE	0.026	142,148	33,523	108,625	142,239	284,387	0.618
1994	129,119	12-Jun	Ave.(88-90&95-96) FW CPUE	0.019	131,580	29,001	102,579	98,157	229,737	0.553
1995	145,264	11-Jun	1995 FW CPUE	0.008	146,450	32,711	113,739	91,998	238,448	0.523
1996	132,322	9-Jun	1996 FW CPUE	0.017	134,651	42,025	92,626	188,396	323,047	0.713
1997	93,816	3-May	1997 FW CPUE	0.017	95,438	24,352	71,086	79,341	174,779	0.593
1998	89,992	2-May	No Expansion		89,992	19,277	70,715	50,646	140,638	0.497
1999	113,706	14-May	No Expansion		113,706	21,151	92,555	64,581	178,287	0.481
2000	115,693	14-May	No Expansion		115,693	28,468	87,225	132,846	248,539	0.649
Averages										
84-00					122,933	24,090	98,843	89,686	212,619	0.535
91-00					128,928	28,575	100,353	107,684	236,612	0.576
2001	192,245	27-May	No Expansion		192,245	48,117	144,128	208,470	400,715	0.640

Appendix D. 10. Sockeye salmon escapement estimates of Taku River and Port Snettisham sockeye salmon stocks, 1979-2001.

Spawners equals escapement to the weir minus fish collected for brood stock.

Year	Little Trapper Count	Little Trapper Escapement	Tatsamenie Escapement	Tatsamenie Spawners	Tatsamenie Escapement	Tatsamenie Spawners	King Salmon Weir	Kuthai Lake Weir	Nahlin River Weir	Crescent Lake Escapement	Crescent Lake Spawners	Speel Lake Escapement	Speel Lake Spawners
1980								1,658					
1981								2,299					
1982													
1983[a]	7,402	7,402								19,422	19,422	10,484	10,484
1984	13,084	13,084								6,707	6,707	9,764	9,764
1985[a]	14,889	14,889	13,093	13,093						7,249	7,249	7,073	7,006
1986	13,820	13,820	11,446	11,446						3,414	3,414	5,857	5,457
1987[a]	12,007	12,007	2,794	2,794						7,839	7,839	9,319	9,319
1988	10,637	10,637	2,063	2,063					**138**	1,199	1,199	969	710
1989	9,606	9,606	3,039	3,039						1,109	775	12,229	10,114
1990	9,443	7,777	5,736	4,929					2,515	1,262	757	18,064	16,867
1991	22,942	21,001	8,381	7,585						9,208	8,666	299	299
1992	14,372	12,732	6,576	5,681				**1,457**	**297**	22,674	21,849	9,439	8,136
1993	17,432	16,685	5,028	4,230				6,312	2,463				
1994	13,438	12,691	4,371	3,578				5,427	960				
1995	11,524	11,524			5,780	4,387		3,310	3,711			16,208	14,260
1996	5,483	5,483			10,381	8,026		4,243	2,538			20,000	18,610
1997	5,924	5,924			8,363	5,981		5,746	1,857			**4,999**	
1998	8,717	8,717			5,997	4,735		1,934	345			**13,358**	
1999	11,805	11,805			2,104	1,888		10,042				**10,277**	
2000	11,551	11,551			7,575	6,094		4,096				**6,764**	
Averages													
83-00	11,893	11,519										9,694	
91-00	12,319	11,811	6,089	5,269	6,700	5,185		4,730	1,739			10,168	
2001	16,860	16,860	22,575	21,094	19,613	18,132		1,663	935			**8,060**	

[a] Weir count plus spawning ground survey; Trapper 1983, 1985, 1987.

Minimum estimates of run size and incomplete counts are bold.

Appendix D. 11. Taku River Chinook salmon run size, 1989-2001.

The run estimates do not include spawning escapements below the U.S./Canada border.
Estimates are expanded if mark-recapture activities terminate prior to run completion.

	Above Border M-R							
	Run	Start	Confidence Intervals		Canadian	Spawning	U.S.	Total
Year	Estimate	Date	Lower	Upper	Catch	Escapement	Catch	Run
Large Fish Only								
1989	41,464		29,263	51,395	1,135	40,329		
1990	53,561		33,863	70,421	1,419	52,142		
1991					1,555			
1992					1,636			
1993					1,716			
1994					2,187			
1995	35,622		23,887	43,723	1,817	33,805	2,791	38,413
1996	82,079		61,285	96,753	3,060	79,019	6,399	88,478
1997	117,514	3-May	79,878	149,998	2,576	114,938	7,214	124,728
1998	32,426	3-May	6,108	55,970	1,387	31,039	2,361	34,787
1999	18,483	3-May	11,978	27,490	1,697	16,786	3,179	24,610
2000	37,962	24-Apr	19,912	41,146	2,965	34,997	1,971	35,464
2001	49,598	28-Apr	30,285	55,675	2,954	46,644	1,965	47,899

Appendix D. 12. Aerial survey index escapement counts of Taku River Chinook salmon, 1975-2001.

Year	Kowatua	Tatsatua	Dudidontu	Tseta	Nakina	Nahlin	Total Index Count without Tseta
1975			15		1,800	274	2,089
1976	341	620	40		3,000	725	4,726
1977	580	573	18		3,850	650	5,671
1978	490	550		21	1,620	624	3,284
1979	430	750	9		2,110	857	4,156
1980	450	905	158		4,500	1,531	7,544
1981	560	839	74	258	5,110	2,945	9,528
1982	289	387	130	228	2,533	1,246	4,585
1983	171	236	117	179	968	391	1,883
1984[ab]	279	616		176	1,887	951	3,733
1985	699	848	475	303	2,647	2,236	6,905
1986	548	886	413	193	3,868	1,612	7,327
1987	570	678	287	180	2,906	1,122	5,563
1988	1,010	1,272	243	66	4,500	1,535	8,560
1989	601	1,228	204	494	5,141	1,812	8,986
1990	614	1,068	820	172	7,917	1,658	12,077
1991	570	1,164	804	224	5,610	1,781	9,929
1992	782	1,624	768	313	5,750	1,821	10,745
1993	1,584	1,491	1,020	491	6,490	2,128	12,713
1994	410	1,106	573	614	4,792	2,418	9,299
1995	550	678	731	786	3,943	2,069	7,971
1996	1,620	2,011	1,810	1,201	7,720	5,415	18,576
1997	1,360	1,148	943	648	6,095	3,655	13,201
1998	473	675	807	360	2,720	1,294	5,969
1999	561	431	527	221	1,900	532	3,951
2000	702	953	482	160	2,907	728	5,772
Averages							
75-00	650	909	478	347	3,934	1,616	7,934
91-00	861	1,128	847	502	4,793	2,184	10,314
2001	1,050	1,024	479	202	1,552	935	5,040

[a] Partial survey. Tseta 84

[b] Extrapolated results. Nahlin 84

Appendix D. 13. Taku River (above border) coho salmon run size, 1987-2001.

The run estimates do not include spawning escapements below the U.S./Canada border. Estimates are expanded if mark-recapture activities terminate prior to run completion.

	Above Border M-R									Total
	Run	End	Expansion		Expanded	Canadian		U.S.	Total	Exploitation
Year	Estimate	Date	Method	Factor	Estimate	Catch	Escape.	Catch	Run	Rate
1987	43,750	20-Sep	Test Fish CPUE	1.42	61,976	6,519	55,457			
1988	43,093	18-Sep		1.00	43,093	3,643	39,450			
1989	60,841	1-Oct		1.00	60,841	4,033	56,808			
1990	75,881			1.00	75,881	3,685	72,196			
1991	132,923			1.00	132,923	5,439	127,484			
1992	50,557	5-Sep	District 111-32 CPUE	1.79	90,394	5,541	84,853	96,371	186,677	0.545
1993	62,076	11-Sep	District 111-32 CPUE	1.84	114,091	4,634	109,457	97,783	211,849	0.483
1994	98,643	24-Sep	District 111-32 CPUE	1.13	111,036	14,693	96,343	228,700	339,643	0.716
1995	61,738	30-Sep	District 111-32 CPUE	1.12	69,448	13,738	55,710	111,668	181,019	0.692
1996	44,172	28-Sep	District 111-32 CPUE	1.12	49,687	5,052	44,635	44,596	94,216	0.526
1997	35,035	27-Sep	District 111-32 CPUE	1.00	35,035	2,690	32,345	15,852	50,860	0.364
1998	49,290	26-Sep	District 111-32 CPUE	1.35	66,472	5,090	61,382	53,454	119,840	0.488
1999	59,052	3-Oct	Troll CPUE	1.12	66,343	5,575	60,768	50,833	117,132	0.481
2000	70,147	2-Oct	no expansion	1.00	70,147	5,447	64,700	39,002	105,537	0.387
Averages										
91-00	66,363	9/23		1.25	80,558	6,790	73,768	81,569	156,308	0.528
2001	107,493	5-Oct	no expansion	1.00	107,493	3,099	104,394	55,286	160,883	0.351

Appendix D. 14. Escapement counts of Taku River coho salmon, 1984-2001.

Counts are for age-.1 fish and do not include jacks. Because of variability between methods, visibility, observers, and timing, these counts are not an index of run strength.

			Sockeye	Johnson	Fish	Flannigan	Tatsamenie	Hacket	Dudidontu		
	Yehring Creek		Creek	Creek	Creek	Slough	River	River	River	Upper Nahlin River	
Year	Weir	Aerial	Aerial	Ar/Foot	Aerial	Aerial	Weir	Weir	Aerial	Aerial	Weir
1984		2,900	275	235	700	1,480					
1985		560	740	150	1,000	2,320	**201**	1,031			
1986	2,116[a]	1,200	**174**	70	**53**	**1,095**	**344**	2,723	108	318	
1987	1,627[a]	**565**	**980**	150	250	**2,100**	**173**	1,715	276	165	
1988	1,423	**658**	**585**	500	**1,215**	**1,308**	663[a]	1,260	367	694	1,322
1989	**1,570**	600	400	400	235	1,670	712[a]		115	322	
1990	**2,522**	220	**193**		**425**	**414**	669[a]		25	256	
1991		**475**	**399**	120	**1,378**	**1,348**	1,101		458	**176**	
1992		**1,267**	**594**	654	478	1,288	730				**970**[a]
1993		**250**	130	90	380	70	**88**				**326**
1994		500	60	450	200	50	168				**2,112**
1995		70	230	170	132	421	**62**				
1996		35	28	50	250	278	**21**				
1997		500	10	550	600						
1998		280		300	450						
1999		1,050			400						
2000		450		500	1,800						
Surveys Discontinued											

[a] Weir count combined with spawning ground count. Tatsamenie 88-90, Yehring 86-87, Nahlin 92.

Bold--Incomplete count or minial estimates

Appendix D. 15. Canyon Island fish wheel salmon counts and periods of operation on the Taku River, 1983-2001.

Total counts from both fishwheels and supplemental gillnet when water is too low for fishwheels								
		Catch						
	Period of						Pink	
Year	Operation	Chinook	Sockeye	Coho	Pink	Chum	even year	odd year
1984	6/15-9/18	138	2,334	889	20,751	316	20,751	
1985	6/16-9/21	184	3,601	1,207	27,670	1,376		27,670
1986	6/14-8/25	571	5,808	758	7,256	80	7,256	
1987	6/15-9/20	285	4,307	2,240	42,786	1,533		42,786
1988	5/11-9/19	1,436	3,292	2,168	3,982	1,089	3,982	
1989	5/05-10/01	1,811	5,650	2,243	31,189	645		31,189
1990	5/03-9/23	1,972	6,091	1,860	13,358	748	13,358	
1991	6/08-10/15	680	5,102	4,922	23,553	1,063		23,553
1992	6/20-9/24	212	6,279	2,103	9,252	189	9,252	
1993	6/12-9/29	562	8,975	2,552	1,625	345		1,625
1994	6/10-9/21	906	6,485	4,792	27,100	367	27,100	
1995	5/4-9/27	1,535	6,228	2,535	1,712	218		1,712
1996	5/3-9/20	1,904	5,919	1,895	21,583	388	21,583	
1997	5/3-10/1	1,321	5,708	1,665	4,962	485		4,962
1998	5/2-9/15	894	4,230	1,777	23,347	179	23,347	
1999	5/3-10/3	440	4,636	1,848	23,503	164		23,503
2000	4/23-10/3	1,211	5,865	1,877	6,529	423	6,529	
Averages								
84-00		945	5,324	2,196	17,068	565	14,795	19,625
91-00		967	5,943	2,597	14,317	382	17,562	11,071
2001	4/23-10/5	1,262	6,201	2,380	9,134	250		9,134

Appendix E. 1. Weekly salmon catch and effort in the lower Alsek River fisheries, 2001.

		Catch					Effort		
Week	Start Date	Chinook	Sockeye	Coho	Pink	Chum	Boats	Days Open	Boat Days
Commercial Fishery									
23	3-Jun	145	407	0	0	0	11	1.0	11.0
24	10-Jun	147	445	0	0	0	12	1.0	12.0
25	17-Jun	151	1,208	0	0	0	10	2.0	20.0
26	24-Jun	70	543	0	0	0	9	1.0	9.0
27	1-Jul	17	1,578	0	0	0	9	2.0	18.0
28	8-Jul	9	2,105	0	0	0	10	2.0	20.0
29	15-Jul	1	2,649	0	3	0	10	2.0	20.0
30	22-Jul	0	939	0	1	1	10	2.0	20.0
31	29-Jul	1	3,176	0	4	0	10	3.0	30.0
32	5-Aug	0	668	3	0	2	9	1.0	9.0
33	12-Aug	0	125	15	0	2	5	1.0	5.0
34	19-Aug	0	108	232	0	1	5	3.0	15.0
35	26-Aug	0	25	548	0	4	5	3.0	15.0
36	2-Sep	0	13	800	0	4	5	3.0	15.0
37-38	9&16-Sep	0	6	1,311	0	3			15
Total		541	13,995	2,909	8	17	125	51	234

Appendix E. 2. Weekly salmon catch and effort in the Canadian Aboriginal and sport fisheries in the Alsek River, 2001.

		Chinook				Sockeye				Coho			
		Recreational				Recreational				Recreational			
Week	Date	Kept[a]	Released[a]	Aborigina	Total[b]	Kept	Released	Aborigina	Total[b]	Kept	Released	Aborigina	Total[b]
25	17-Jun	0	0	0	0	0	0	0	0	0	0	0	0
26	24-Jun	0	0	0	0	0	0	22	22	0	0	0	0
27	1-Jul	10	0	1	11	0	0	0	0	0	0	0	0
28	8-Jul	32	70	6	38	0	6	6	6	0	0	0	0
29	15-Jul	86	133	28	114	0	14	56	56	0	0	0	0
30	22-Jul	24	51	21	45	0	6	30	30	0	0	0	0
31	29-Jul	5	0	25	30	0	0	50	50	0	0	0	0
32	5-Aug	0	0	27	27	2	0	21	23	0	0	0	0
33	12-Aug	2	2	8	10	0	0	107	107	0	0	0	0
34	19-Aug	0	2	4	4	0	0	71	71	0	0	0	0
35	26-Aug	0	0	0	0	2	0	311	313	0	0	0	0
36	2-Sep	0	0	0	0	0	0	207	207	0	0	0	0
37	9-Sep	0	0	0	0	0	0	152	152	0	0	0	0
38	16-Sep	0	0	0	0	0	0	24	24	0	0	0	0
39	23-Sep	0	0	0	0	0	0	101	101	0	0	0	0
40	30-Sep	0	0	0	0	0	2	0	0	2	37	3	5
41	7-Oct	0	0	0	0	0	2	0	0	70	40	2	72
42	14-Oct	0	0	0	0	0	0	0	0	22	44	0	22
Total		157	257	120	277	4	30	1158	1162	94	121	5	99
Village Creek food fish c				3				141				0	
Food fish above Klukshu Weir c				87				961				2	

[a] Includes estimates of sport catch (kept and released) in Takhanne and Blanchard rivers; estimates based on salmon catch card information.

[b] Does not include released fish.

[c] The total food fish catch above the Klukshu Weir and at Village Creek are included in the weekly aboriginal catches.

Appendix E. 3. Daily counts of salmon passing through Klukshu River weir, 2001.

	All Chinook			Sockeye			Coho		
		Cumulative			Cumulative			Cumulative	
Date	Daily	Daily	Prop.	Daily	Daily	Prop.	Daily	Daily	Prop.
10-Jun	0	0	0.000	0	0	0.000	0	0	0.000
11-Jun	0	0	0.000	0	0	0.000	0	0	0.000
12-Jun	0	0	0.000	0	0	0.000	0	0	0.000
13-Jun	0	0	0.000	0	0	0.000	0	0	0.000
14-Jun	0	0	0.000	0	0	0.000	0	0	0.000
15-Jun	0	0	0.000	0	0	0.000	0	0	0.000
16-Jun	0	0	0.000	0	0	0.000	0	0	0.000
17-Jun	0	0	0.000	0	0	0.000	0	0	0.000
18-Jun	0	0	0.000	0	0	0.000	0	0	0.000
19-Jun	0	0	0.000	0	0	0.000	0	0	0.000
20-Jun	0	0	0.000	0	0	0.000	0	0	0.000
21-Jun	0	0	0.000	0	0	0.000	0	0	0.000
22-Jun	0	0	0.000	0	0	0.000	0	0	0.000
23-Jun	0	0	0.000	0	0	0.000	0	0	0.000
24-Jun	0	0	0.000	0	0	0.000	0	0	0.000
25-Jun	0	0	0.000	2	2	0.000	0	0	0.000
26-Jun	1	1	0.001	1	3	0.000	0	0	0.000
27-Jun	2	3	0.002	1	4	0.000	0	0	0.000
28-Jun	3	6	0.003	0	4	0.000	0	0	0.000
29-Jun	5	11	0.006	0	4	0.000	0	0	0.000
30-Jun	0	11	0.006	3	7	0.001	0	0	0.000
1-Jul	4	15	0.008	4	11	0.001	0	0	0.000
2-Jul	2	17	0.009	2	13	0.001	0	0	0.000
3-Jul	2	19	0.010	0	13	0.001	0	0	0.000
4-Jul	2	21	0.012	2	15	0.001	0	0	0.000
5-Jul	2	23	0.013	3	18	0.002	0	0	0.000
6-Jul	2	25	0.014	3	21	0.002	0	0	0.000
7-Jul	4	29	0.016	0	21	0.002	0	0	0.000
8-Jul	1	30	0.016	3	24	0.002	0	0	0.000
9-Jul	2	32	0.018	5	29	0.003	0	0	0.000
10-Jul	4	36	0.020	1	30	0.003	0	0	0.000
11-Jul	3	39	0.021	2	32	0.003	0	0	0.000
12-Jul	8	47	0.026	0	32	0.003	0	0	0.000
13-Jul	11	58	0.032	3	35	0.003	0	0	0.000
14-Jul	21	79	0.043	3	38	0.004	0	0	0.000
15-Jul	22	101	0.055	6	44	0.004	0	0	0.000
16-Jul	44	145	0.079	11	55	0.005	0	0	0.000
17-Jul	641	786	0.431	90	145	0.014	0	0	0.000
18-Jul	37	823	0.451	14	159	0.015	0	0	0.000
19-Jul	55	878	0.481	11	170	0.017	0	0	0.000
20-Jul	18	896	0.491	18	188	0.018	0	0	0.000
21-Jul	37	933	0.511	45	233	0.023	0	0	0.000
22-Jul	98	1,031	0.565	105	338	0.033	0	0	0.000
23-Jul	50	1,081	0.592	21	359	0.035	0	0	0.000
24-Jul	70	1,151	0.631	13	372	0.036	0	0	0.000
25-Jul	27	1,178	0.645	6	378	0.037	0	0	0.000
26-Jul	39	1,217	0.667	7	385	0.037	0	0	0.000
27-Jul	45	1,262	0.692	8	393	0.038	0	0	0.000
28-Jul	46	1,308	0.717	3	396	0.038	0	0	0.000
29-Jul	50	1,358	0.744	4	400	0.039	0	0	0.000
30-Jul	44	1,402	0.768	8	408	0.040	0	0	0.000
31-Jul	18	1,420	0.778	4	412	0.040	0	0	0.000
1-Aug	69	1,489	0.816	9	421	0.041	0	0	0.000
2-Aug	110	1,599	0.876	83	504	0.049	0	0	0.000
3-Aug	31	1,630	0.893	10	514	0.050	0	0	0.000
4-Aug	13	1,643	0.900	7	521	0.051	0	0	0.000
5-Aug	10	1,653	0.906	4	525	0.051	0	0	0.000
6-Aug	19	1,672	0.916	6	531	0.052	0	0	0.000
7-Aug	12	1,684	0.923	20	551	0.054	0	0	0.000
8-Aug	8	1,692	0.927	43	594	0.058	0	0	0.000
9-Aug	6	1,698	0.930	2	596	0.058	0	0	0.000
10-Aug	2	1,700	0.932	5	601	0.058	0	0	0.000
11-Aug	1	1,701	0.932	5	606	0.059	0	0	0.000
12-Aug	4	1,705	0.934	7	613	0.060	0	0	0.000
13-Aug	4	1,709	0.936	197	810	0.079	1	1	0.001
14-Aug	9	1,718	0.941	84	894	0.087	0	1	0.001
15-Aug	11	1,729	0.947	14	908	0.088	0	1	0.001
16-Aug	25	1,754	0.961	340	1,248	0.121	0	1	0.001

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	All Chinook			Sockeye			Coho		
		Cumulative			Cumulative			Cumulative	
Date	Daily	Daily	Prop.	Daily	Daily	Prop.	Daily	Daily	Prop.
17-Aug	4	1,758	0.963	9	1,257	0.122	0	1	0.001
18-Aug	8	1,766	0.968	10	1,267	0.123	0	1	0.001
19-Aug	12	1,778	0.974	4	1,271	0.124	0	1	0.001
20-Aug	5	1,783	0.977	7	1,278	0.124	0	1	0.001
21-Aug	0	1,783	0.977	20	1,298	0.126	0	1	0.001
22-Aug	3	1,786	0.979	114	1,412	0.137	0	1	0.001
23-Aug	16	1,802	0.987	771	2,183	0.212	0	1	0.001
24-Aug	14	1,816	0.995	827	3,010	0.293	0	1	0.001
25-Aug	0	1,816	0.995	543	3,553	0.345	0	1	0.001
26-Aug	1	1,817	0.996	263	3,816	0.371	0	1	0.001
27-Aug	2	1,819	0.997	555	4,371	0.425	0	1	0.001
28-Aug	0	1,819	0.997	144	4,515	0.439	0	1	0.001
29-Aug	0	1,819	0.997	115	4,630	0.450	0	1	0.001
30-Aug	0	1,819	0.997	2,003	6,633	0.645	0	1	0.001
31-Aug	0	1,819	0.997	241	6,874	0.668	0	1	0.001
1-Sep	1	1,820	0.997	45	6,919	0.672	0	1	0.001
2-Sep	1	1,821	0.998	540	7,459	0.725	1	2	0.003
3-Sep	0	1,821	0.998	24	7,483	0.727	0	2	0.003
4-Sep	4	1,825	1.000	35	7,518	0.731	0	2	0.003
5-Sep	0	1,825	1.000	17	7,535	0.732	1	3	0.004
6-Sep	0	1,825	1.000	33	7,568	0.735	0	3	0.004
7-Sep	0	1,825	1.000	109	7,677	0.746	8	11	0.015
8-Sep	0	1,825	1.000	119	7,796	0.758	3	14	0.019
9-Sep	0	1,825	1.000	363	8,159	0.793	1	15	0.020
10-Sep	0	1,825	1.000	101	8,260	0.803	1	16	0.021
11-Sep	0	1,825	1.000	62	8,322	0.809	1	17	0.023
12-Sep	0	1,825	1.000	11	8,333	0.810	2	19	0.025
13-Sep	0	1,825	1.000	1,496	9,829	0.955	37	56	0.075
14-Sep	0	1,825	1.000	135	9,964	0.968	19	75	0.100
15-Sep	0	1,825	1.000	58	10,022	0.974	4	79	0.106
16-Sep	0	1,825	1.000	11	10,033	0.975	0	79	0.106
17-Sep	0	1,825	1.000	22	10,055	0.977	0	79	0.106
18-Sep	0	1,825	1.000	0	10,055	0.977	1	80	0.107
19-Sep	0	1,825	1.000	2	10,057	0.977	0	80	0.107
20-Sep	0	1,825	1.000	0	10,057	0.977	1	81	0.108
21-Sep	0	1,825	1.000	2	10,059	0.978	3	84	0.112
22-Sep	0	1,825	1.000	2	10,061	0.978	0	84	0.112
23-Sep	0	1,825	1.000	0	10,061	0.978	1	85	0.114
24-Sep	0	1,825	1.000	4	10,065	0.978	0	85	0.114
25-Sep	0	1,825	1.000	4	10,069	0.979	0	85	0.114
26-Sep	0	1,825	1.000	1	10,070	0.979	2	87	0.116
27-Sep	0	1,825	1.000	18	10,088	0.980	3	90	0.120
28-Sep	0	1,825	1.000	29	10,117	0.983	10	100	0.134
29-Sep	0	1,825	1.000	8	10,125	0.984	5	105	0.140
30-Sep	0	1,825	1.000	11	10,136	0.985	11	116	0.155
1-Oct	0	1,825	1.000	3	10,139	0.985	21	137	0.183
2-Oct	0	1,825	1.000	20	10,159	0.987	37	174	0.233
3-Oct	0	1,825	1.000	4	10,163	0.988	19	193	0.258
4-Oct	0	1,825	1.000	37	10,200	0.991	284	477	0.638
5-Oct	0	1,825	1.000	51	10,251	0.996	147	624	0.834
6-Oct	0	1,825	1.000	27	10,278	0.999	50	674	0.901
7-Oct	0	1,825	1.000	2	10,280	0.999	12	686	0.917
8-Oct	0	1,825	1.000	4	10,284	0.999	14	700	0.936
9-Oct	0	1,825	1.000	2	10,286	1.000	7	707	0.945
10-Oct	0	1,825	1.000	0	10,286	1.000	8	715	0.956
11-Oct	0	1,825	1.000	0	10,286	1.000	1	716	0.957
12-Oct	0	1,825	1.000	1	10,287	1.000	8	724	0.968
13-Oct	0	1,825	1.000	2	10,289	1.000	7	731	0.977
14-Oct	0	1,825	1.000	1	10,290	1.000	4	735	0.983
15-Oct	0	1,825	1.000	0	10,290	1.000	6	741	0.991
16-Oct	0	1,825	1.000	0	10,290	1.000	5	746	0.997
17-Oct	0	1,825	1.000	0	10,290	1.000	2	748	1.000
18-Oct	0	1,825	1.000	0	10,290	1.000	0	748	1.000
Total Count		1,825			10,290			748	
Catch at weir		1,825			10,290			748	
Catch above weir		87			961			2	
Total Escapement		1,738			9,329			746	

Appendix E. 4. Salmon catch and effort in the U.S. Commercial fishery in the Alsek River, 1960 to 2001.

	Catch					Effort	
Year	Chinook	Sockeye	Coho	Pink	Chum	Boat Days	Days Open
1960							
1961	2,120	23,339	7,679	84	86	1,436	80.0
1962							
1963	131	6,055	7,164	42	34	692	68.0
1964	591	14,127	9,760	144	367	592	68.0
1965	719	28,487	9,638	10	72	1,016	72.0
1966	934	29,091	2,688	22	240	500	64.0
1967	225	11,108	10,090	107	30	600	68.0
1968	215	26,918	10,586	82	240	664	68.0
1969	685	29,259	2,493	38	61	807	61.0
1970	1,128	22,654	2,188	6	26	670	52.3
1971	1,222	25,314	4,730	3	120	794	60.5
1972	1,827	18,717	7,296	37	280	640	65.0
1973	1,757	26,523	4,395	26	283	894	52.0
1974	1,162	16,747	7,046	13	107	699	46.0
1975	1,379	13,842	2,230	16	261	738	58.0
1976	512	19,741	4,883	0	368	550	58.5
1977	1,402	40,780	11,817	689	483	882	57.0
1978	2,441	50,580	13,913	59	233	929	57.0
1979	2,525	41,449	6,158	142	263	1,110	51.0
1980	1,382	25,522	7,863	21	1,005	773	42.0
1981	779	23,641	10,232	65	816	588	40.0
1982	532	27,443	6,534	6	358	552	33.0
1983	94	18,293	5,253	20	432	487	38.0
1984	60	14,326	7,868	24	1,610	429	33.0
1985	213	5,792	5,490	3	427	277	33.0
1986	481	24,791	1,344	13	462	517	34.0
1987	347	11,393	2,517	0	1,924	388	40.5
1988	223	6,286	4,986	7	908	324	34.0
1989	228	13,513	5,972	2	1,031	378	38.0
1990	78	17,013	1,437	0	495	374	38.0
1991	103	17,542	5,956	0	105	530	49.0
1992	301	19,298	3,116	1	120	372	46.0
1993	300	20,043	1,215	0	49	372	40.0
1994	805	19,639	4,182	0	32	403	61.0
1995	670	33,112	14,184	13	347	879	53.5
1996	772	15,182	5,514	0	165	419	51.0
1997	568	25,879	11,427	0	34	611	59.0
1998	550	15,007	4,925	1	145	358	41.0
1999	482	11,441	5,660	0	112	319	44.0
2000	677	9,522	5,103	5	130	307	37.0
Averages							
60-00	786	21,010	6,296	44	366	617	51
91-00	526	18,667	6,128	2	124	478	47
2001	541	13,995	2,909	8	17	234	50.0

Appendix E. 5. Salmon catch in the U.S. subsistence and personal use fisheries in the Alsek River, 1976-2001.

Catches are those reported on returned permits			
	Catch		
Year	Chinook	Sockeye	Coho
1976	13	51	5
1977	18	113	0
1978			
1979	80	35	70
1980	57	41	62
1981	32	50	74
1982	87	75	50
1983	31	25	50
1984			
1985	16	95	0
1986	22	241	45
1987	27	173	31
1988	13	148	9
1989	20	131	34
1990	85	144	12
1991	38	104	0
1992	15	37	44
1993	38	96	28
1994	60	47	20
1995	51	167	53
1996	60	67	28
1997	38	273	26
1998	63	158	42
1999	44	152	21
2000	73	146	31
Averages			
76-00	43	112	32
91-00	48	125	29
2001	19	72	45

Appendix E. 6. Salmon catches in the Canadian Aboriginal and sport fisheries in the Alsek River, 1976 to 2001.

	Chinook			Sockeye			Coho		
Year	Aboriginal	Recreational	Total	Aboriginal	Recreational	Total	Aboriginal	Recreational	Total
1976	150	200	350	4,000	600	4,600	0	100	100
1977	350	300	650	10,000	500	10,500	0	200	200
1978	350	300	650	8,000	500	8,500	0	200	200
1979	1,300	650	1,950	7,000	750	7,750	0	100	100
1980	150	200	350	800	600	1,400	0	200	200
1981	150	315	465	2,000	808	2,808	0	109	109
1982	400	224	624	5,000	755	5,755	0	109	109
1983	300	312	612	2,550	732	3,282	0	16	16
1984	100	475	575	2,600	289	2,889	0	20	20
1985	175	250	425	1,361	100	1,461	50	100	150
1986	102	165	267	1,914	307	2,221	0	9	9
1987	125	367	492	1,158	383	1,541	0	49	49
1988	43	249	292	1,604	322	1,926	0	192	192
1989	234	272	506	1,851	319	2,170	0	227	227
1990	202	555	757	2,314	392	2,706	0	75	75
1991	509	388	897	2,111	303	2,414	0	227	227
1992	148	103	251	2,592	582	3,174	0	213	213
1993	152	171	323	2,361	329	2,690	0	37	37
1994	289	197	486	1,745	261	2,006	8	69	77
1995	580	1,044	1,624	1,745	682	2,427	83	527	610
1996	448	650	1,098	1,204	157	1,361	56	9	65
1997	232	298	530	484	36	520	5	0	5
1998	171	175	346	567	18	585	72	40	112
1999	238	174	412	554	0	554	0	28	28
2000	65	77	142	745	0	745	51	1	52
Averages									
76-00	278	324	602	2,650	389	3,039	13	114	127
91-00	282	328	609	1,411	237	1,648	28	115	143
2001	120	157	277	1,173	4	1,177	5	94	99

Appendix E. 7. Annual Klukshu River weir counts of Chinook, sockeye, and coho salmon, 1976 to 2001.

The escapement count equals the weir count minus the aboriginal fishery catch above the weir and broodstock taken.

	All Chinook		Sockeye				Coho[a]	
Year	Count	Escape.[c]	Early[c]	Late	Total	Escape.	Count	Escape.[b]
1976	1,278	1,153	181	11,510	11,691	7,941	1,572	
1977	3,144	2,894	8,931	17,860	26,791	15,441	2,758	
1978	2,976	2,676	2,508	24,359	26,867	19,017	30	
1979	4,404	2,454	977	11,334	12,311	7,051	175	
1980	2,637	2,487	1,008	10,742	11,750	10,850	704	
1981	2,113	1,963	997	19,351	20,348	18,448	1,170	
1982	2,369	1,969	7,758	25,941	33,699	28,899	189	
1983	2,537	2,237	6,047	14,445	20,492	18,017	303	
1984	1,672	1,572	2,769	9,958	12,727	10,227	1,402	
1985	1,458	1,283	539	18,081	18,620	17,259	350	
1986	2,709	2,607	416	24,434	24,850	22,936	71	
1987	2,616	2,491	3,269	7,235	10,504	9,346	202	
1988	2,037	1,994	585	8,756	9,341	7,737	2,774	
1989	2,456	2,289	3,400	20,142	23,542	21,636	2,219	
1990	1,915	1,742	1,316	24,679	25,995	24,607	315	
1991	2,489	2,248	1,924	17,053	18,977	17,645	8,540	8,478
1992	1,367	1,242	11,339	8,428	19,767	18,269	1,145	1,145
1993	3,302	3,220	5,369	11,371	16,740	14,921	788	788
1994	3,727	3,628	3,247	11,791	15,038	13,892	1,232	1,232
1995	5,678	5,394	2,289	18,407	20,696	19,817	3,614	3,564
1996	3,599	3,382	1,502	6,818	8,320	7,891	3,465	3,465
1997	2,989	2,829	6,565	4,931	11,496	11,303	307	302
1998	1,364	1,347	597	12,994	13,591	13,580	1,961	1,961
1999	2,193	2,168	371	5,010	5,381	5,101	2,531	2,531
2000	1,365	1,321	237	5,314	5,551	5,422	4,832	4,791
Averages								
76-00	2,576	2,344	2,966	14,038	17,003	14,690	1,702	
91-00	2,807	2,678	3,344	10,212	13,556	12,784	2,833	2,826
2001	1,825	1,738	908	9,382	10,290	9,329	748	746

[a] Weir was removed prior to the end of the coho run.

[b] The chinook and sockeye escapements into Klukshu Lake are calculated from the weir count minus fish harvested above the weir site minus broodstock taken. The remainder of the food fishery harvest occurred below the weir, at Village Creek, and Blanchard and Takhanne Rivers.

[c] Includes sockeye counts up to and including August 15.

Appendix E. 8. Alsek River sockeye salmon escapement 2000 to 2001.

The estimates are based on a mark-recapture study.

	Inriver Run	Confidence Interval		Canadian	Spawning	U.S.	Total	Percent
Year	Estimate	Lower	Upper	Catch	Escapement	Catch	Run	Klukshu
2000	37,887	23,410	52,365	745	37,142	9,668	47,555	14.7%
2001	31,164	23,143	39,185	1,177	29,987	14,067	45,231	33.0%

Appendix E. 9. Alsek River sockeye salmon counts from U.S. and Canadian aerial surveys and from the electronic counter at Village Creek, 1985-2001.

Surveys not made every year at each tributary.

	U.S. Aerial Surveys				Canada Aerial Surveys [b]		Village
Year	Basin Creek	Cabin Creek	Muddy Creek	Tanis River	Tatshenshini River	Teskataheen Lake	Creek Counter
1985	2,600			2,200			
1986	100		300	2,700	536	750	1,490
1987	350	220		1,600			1,875
1988	500			750	433	456	**433**
1989	320			680	1,689	1,700	9,569
1990	275	300		3,500			**5,313**
1991				800			**86**
1992	1,000	10		50			**7,447**
1993	4,800			900			**2,104**
1994	250			600	366		**3,921**
1995	2,700			350			4,042
1996	325			650			1,583
1997	600			350			2,267
1998				130			826
1999	30			800			**NA**
2000	25			180			1,860
Averages							
85-00	991	177	300	1,015	756	969	4,116
91-00	1,216	10		481	366		4,461
2001				700			**1,897**

[a] Includes several streams from Lo-Fog to Goat Creek.

Appendix E. 10. Aerial survey index counts of Alsek River Chinook salmon escapements, 1984 to 2001.

Year	Blanchard River	Takhanne River	Goat Creek
1984	304	158	28
1985	232	184	
1986	556	358	142
1987	624	395	85
1988	437	169	54
1989	No Survey -Poor Cond.	158	34
1990	No Survey -Poor Cond.	325	32
1991	121	86	63
1992	86	77	16
1993	326	351	50
1994	349	342	67[a]
1995	338	260	
1996	132	230	12
1997	109	190	
1998	71	136	39
1999	371	194	51
2000	163	152	33
Averages			
84-00	281	221	50
91-00	207	202	41
2001	543	287	21

[a] Late survey date which missed the peak of spawning.

Appendix E. 11. Alsek River run of large Chinook salmon, 1997-2001. Estimates are based on a mark-recapture study and include the percent of Chinook salmon.

Estimates are based on a mark-recapture study and include the percent of Chinook salmon spawning in Klukshu River

	Inriver Run Past	Confidence Interval		U.S. Catch Dry Bay		Total Inriver	Canadian Catch		
Year	Dry Bay	Lower	Upper	Commercial	ubsistence	Run	Aboriginal	Sport	iseapement
1997	15,250	9,081	21,418	568	38	15,856	232	298	14,720
1998	4,967	3,027	9,765	550	63	5,580	171	175	4,621
1999	11,969	8,243	22,035	482	44	12,495	238	174	11,557
2000	8,432	6,805	14,308	677	73	9,182	65	77	8,290
2001	11,246	9,146	14,303	541	19	11,806	120	157	10,969

Klukshu weir count of large chinook salmon as a percent of the Alsek escapement of large chinook salmon

	Weir Count		Percent
	All	Large	Klukshu
1997	2,989	2,864	19.5%
1998	1,364	1,184	25.6%
1999	2,193	1,663	14.4%
2000	1,365	1,218	14.7%
2001	1,825	1,538	14.0%

Appendix E. 12. Aerial survey counts of coho salmon from U.S. lower Alsek River tributaries, 1985-2001.

Year	Combined U.S. Tributary Counts
1985	450
1986	1,100
1987	100
1988	1,900
1989	1,990
1990	1,600
1991	500[a]
1992	1010[a]
1993	800[a]
1994	975[a]
1995	1,050
1996	1,550
1997	No surveys due to poor weather conditions
1998	500
1999	No surveys due to poor weather conditions
2000	620
Averages	
85-00	1,010

Appendix F. 1. Tahltan Lake egg collection, fry plants, and survivals, 1989-2001.

Number for eggs and fry are millions. Eggs collected from Tahltan broodstock are used for outplants to both Tahltan and Tuya Lakes.

	Egg Take		Designated	Fry	Percent	Survival		Thermal Mark
Brood Year	Target	Collected[a]	Tahltan	Planted	Fertilized	Fertilized Egg to Fry	Green Egg to Fry	Pattern
1989[a]	3.000	2.955	2.955	1.042	0.704	0.501	0.353	1:1.4
1990	5.000	4.511	4.511	3.585	0.824	0.964	0.795	1:1.3
1991	5.000	4.246	1.514	1.415	0.949	0.984	0.935	1:1.4
1992	5.400	4.901	2.154	1.947	0.919	0.983	0.904	1:1.5+2.3
1993	6.000	6.140	0.969	0.904	0.946	0.986	0.933	1:1.6+2.5N
1994	6.000	4.183	1.418	1.143	0.929	0.868	0.806	1:1.6
1995	6.000	6.891	3.008	2.296	0.906	0.843	0.763	1:1.7
1996	6.000	6.402	3.169	2.313	0.923	0.791	0.730	1:1.6
1997	6.000	3.221	2.700	1.900	0.812	0.867	0.704	2:1.6
1998	6.000	4.022	1.998	1.671	0.911	0.918	0.836	1:1.7
1999	6.000	3.505	2.773	2.228	0.901	0.892	0.803	2:1.6
2000	6.000	2.388	2.388	1.873	0.920	0.853	0.784	1:1.7
Averages								
91-00	5.533	4.447	2.463	1.860	0.887	0.871	0.779	
2001	6.000	3.306	3.306	2.533	0.829	0.924	0.766	2:1.6

Appendix F. 2. Tuya Lake fry plants and survivals, 1991-2001.

Numbers for eggs and fry are millions

Brood Year	Egg Take Designated Tuya	Fry Planted	Percent Fertilized	Survival Fertilized Egg to Fry	Survival Green Egg to Fry	Thermal Mark Pattern
1991	2.732	1.632	0.944	0.633	0.597	1:1.6
1992	2.747	1.990	0.929	0.780	0.724	1:1.7
1993	5.171	4.691	0.911	0.996	0.907	1:1.4+2.5N
1994	2.765	2.267	0.870	0.943	0.820	1:1.4
1995	3.883	2.474	0.795	0.802	0.637	1:1.4+2.4
1996	3.233	2.614	0.932	0.868	0.809	1:1.4
1997	0.521	0.433	0.911	0.912	0.831	2:1.4
1998	2.024	1.603	0.917	0.864	0.792	1:1.4
1999	1.053	0.867	0.960	0.858	0.823	2:1.4
2000[a]	0.000	0.000				
Averages						
91-00	2.413	1.857	0.908	0.850	0.771	
2001[a]	0.000	0.000				

[a] All eggs collected in 2000 and 2001 were for backplant into Tahltan Lake.

Appendix F. 3. Tatsamenie Lake egg collection, fry plants, and survivals, 1989-2001.

Appendix F.2. Tuya Lake fry plants and survivals, 1991-2001. Num

Brood Year	Egg Take Target	Collected[a]	Transport	Fry Planted	Percent Fertilized	Survival[b] Fertilized Egg to Fry	Green Egg to Fry	Thermal Mark Pattern	Last Date Released
1990	2.500	0.985	0.985	0.673	0.775	0.882	0.683	1:1.3	22-Jun
1991	1.500	1.360	1.360	1.232	0.927	0.977	0.906	2:1.4	26-Jun
1992	1.750	1.486	1.486	0.909	0.858	0.713	0.612	1:1.5	14-Jul
1993	2.500	1.144	1.144	0.521	0.619	0.735	0.455	2:1.5	14-Jul
1994	2.500	1.229	1.229	0.898	0.801	0.912	0.731	1:1.5	21-Jul
1995	2.500	2.407	2.407	1.724	0.843	0.850	0.716	1:1.5	25-Jun
1996	5.000	4.934	4.934	3.945	0.849	0.942	0.800	1:1.5&1:1.5,2.3	27-Jun
1997	5.000	4.651	4.651	3.597	0.910	0.850	0.773	2:1&2:1.5,2.3	9-Jul
1998	2.500	2.414	2.414	1.769	0.897	0.817	0.733	1:1.4+2.5&1:1.4+2.3	30-Jun
1999	2.500	0.461	0.461	0.350	0.922	0.824	0.759	2:1.5	4-Jul
2000	3.000	2.816	2.572	2.320	0.943	0.956	0.902	1.1.5+2.3&1.1.5	26-Jun
Averages									
91-00	2.841	2.172	2.149	1.631	0.850	0.860	0.734		
2001	4.800	4.364	3.499	2.233	0.900	0.709	0.638	2:1.5&2:1.5,2.3	25-Jun

Multiple Release Treatments

	Treatment 1				Treatment 2			
Brood Year	Mark	Treatment	Number Released	Last Date Released	Mark	Treatment	Number Released	Last Date Released
1996	1:1.5	onshore	3.441	27-Jun	1:1.5,2.3	onshore	0.500	27-Jun
1997	2:1.5	onshore	3.202	29-Jun	2:1.5,2.3	fed at lake	0.394	9-Jul
1998	1:1.4+2.5	unfed	0.751	9-Jun	1:1.4+2.3	fed at lake	1.018	30-Jun
1999	2:1.5	fed at lake	0.350	4-Jul				
2000	1.1.5+2.3	fed early	1.265	15-Jun	1.1.5	fed late	1.054	26-Jun
2001	2:1.5	unfed early	0.727	30-May	2:1.5,2.3	fed	1.432	25-Jun

[a] Eggs not transported but placed in inlake incubator; 2000 = 244,000, 2001 = 865,000.

[b] Survival rates are for hatchery eggs and hatchery fry plants and do not inlcude the lake incubators.